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Vol. 89

MAY, 1949

No. 5

AMERICAN BEE JOURNAL

FREE

TO ALL BABCOCK CUSTOMERS EVERYWHERE

QUEENS

One select young laying Italian queen Free with every \$5.00 worth of equipment bought.

PREPAID SHIPMENT

All shipping charges on orders totaling \$20.00 or more will be paid by us to any point in the United States east of the Rocky Mountains.

PAINTED EQUIPMENT

All Babcock equipment is completely painted before packaging. This saves you expense, time, and labor. Painted beehives will last longer and look better. Only the finest grade outside white paint is used.

OUR REASONS FOR DOING ALL THIS ARE:

- We want more business and more satisfied customers to keep our modern beehive factory operating to full capacity.
- We want all of our customers everywhere to be able to buy Babcock equipment at one low uniform price.
- We will have a surplus of many thousands of fine young queens during the Spring and Summer months. We are glad to share these fine queens with our friends and customers, upon whom our business is dependent. Queens can be shipped anytime from May until September.
- All Babcock equipment is completely dovetailed and is made only from the best grades of soft beehive cypress and white pine. We have just completed a new steel and brick addition to our plant and can give the best equipment and service in our history. All orders, whether large or small are appreciated, and all equipment is guaranteed to give complete satisfaction. Terms to one and all are cash with order. You may order direct from this ad or write for free catalogue.

BABCOCK HONEY COMPANY

BOX 126, FIVE POINTS STA.

COLUMBIA 5, S. C.

Rich Man's Quality— Poor Man's Prices

FACTORY TO YOU PRICES—Middleman's Profit Eliminated

One complete single story hive, reversible wood cover,	each	\$5.50
	Per five	22.40
One complete single story hive, standard telescoping cover or with new "All Weather" cover	each	\$6.40
	Per five	25.40
Hive bodies, complete with frames	Per five	\$12.50
Hive bodies, empty	Per five	6.95
Shallow extracting supers with wedge top bar frames	Per five	8.50
Shallow extracting supers, empty	Per five	4.00
Section honey supers, complete with everything except sections	Per five	8.25
Standard reversible bottom boards, 100% cypress	Per five	5.45
Wood reversible covers	Per five	4.50
Metal telescoping covers	Per five	7.45
All weather insulated and ventilated covers	Per five	9.80
Ten frame, all wire electrically welded queen excluders, wood rims	Per five	5.00
	Per ten	9.50
4 1/4 x 4 1/4 x 1 7/8 Beeway sections, split 3 sides for inserting foundation easily. 28 of these sections are needed for each section honey super	Per 100	2.97
	Per 500	13.13
	Per 1000	26.15
DADANT'S THIN SURPLUS FOUNDATION for above sections, 25 sheets per lb. 7 sheets needed for each super	Price per lb. all thin surplus.	\$1.25
DADANT'S THIN SURPLUS for shallow divided bottom bar frames as supplied in our supers. 22 sheets per lb.	Per 5 lbs.	5.95
	Per 25 lbs.	29.25
DADANT'S CRIMP WIRED brood foundation, 8 1/2 x 16 1/4 fits divided bottom bar frames in our hives. 7 sheets per lb.	10 sheets	1.75
	50 sheets	8.10
	25 lbs.	27.75
Folding wire veil	each	\$1.40
10" Hive tool	each	.80
Woodman Smoke Engine Smoker	each	1.80
Big Smoke Smoker with shield	each	2.45

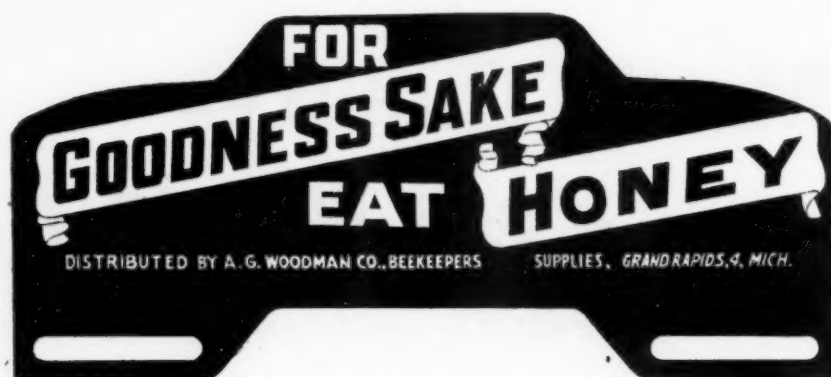
"25 PACK" SPECIALS

Our finest quality supplies shipped, not painted, not freight prepaid and without free queens. A special price to clean out non-painted equipment. Offer only good while present stock lasts.

25 Cypress Reversible Bottom Boards	\$15.25
25 Cypress Reversible Wood Covers	16.25
25 Cypress Metal Telescoping Covers	25.00

These are the only items available in "25 Pack"

BABCOCK HONEY COMPANY
Box 126, Five Points Sta. : Columbia 5, S. C.



JOIN THE BIG PUSH for HONEY

Can more be said in five words? These reflectorized signs on the back of autos and trucks, will show as well at night as by day. Many beekeepers are working their relatives and friends in on their use. One of ours wintering in Florida, telegraphed for a sign.

With a big push by bee and honey men, let us hope that at least 100,000 will get onto the back of autos and trucks over the nation. In this event, a conservative estimate is that at least 500,000 persons will have honey called to their attention every 24 hours.

Think what this will mean in Honey Publicity, an opportunity never offered before. Take full advantage of it. With honey consumption increased one or two pounds per capita, there will not be enough to supply the demand. In this event enough is said.

However, it is very important that any advertising be backed up with dependable products. The consumer must continue to be pleased or they do not come back for a second helping. Do not sell off grade honey for table consumption, or demand will be killed off. Much of the wonderful work of The American Honey Institute is being killed off by the lack of orderly marketing.

The Express companies are collecting Hundreds of Thousands of Dollars for advertising space on the sides of their trucks in the larger cities over the country. This is evidence of the value of such advertising, which must be backed up with dependable products. The Dairy People paid \$185,000.00 for half the truck in half the country for half the year.

The live wires in California have ordered 500 signs and will make a drive to get thousands into use. The Ohio Bee Association ordered 100 to start with. Quantity orders are coming from many states and even Canada. One southern bee shipper ordered 10 signs for his vehicles.

Many comments are coming in such as, "The sign gives me an opportunity to talk honey at 75% of my stops for gas." "With the sign on the back of my car, I notice others creep up behind to read it." "The signs help to identify the fraternity of beemen."

We are giving away many of these signs, but there is a limit to the number we can pass out free. We are holding the bag in their purchase and distribution, at cost. We seek no profit.

They are offered at 35c each in quantity, F. O. B., Grand Rapids, packed in individual envelopes with two pieces of cardboard, or 45c each postpaid to any part of the United States. Quantity buying by groups or associations is invited.

THIS SPACE PAID FOR BY

A. G. WOODMAN CO.

Grand Rapids 4, Mich.

HIVES and SUPERS

Quality, the finest.

Lumber full thickness,
clear, soft pine.

Aluminum for covers and
frame rests. Rigid inner
covers for long service
included.

Triple lock-corner frames.

Price low. Write for
catalog and prices.



The A. I. Root Company
OF IOWA
COUNCIL BLUFFS, IOWA



Fast,
Reliable,
Labor
Savers

At Your Dealers

PORTER BEE ESCAPE
LEWISTOWN, ILLINOIS BOX 89

PRICES REDUCED
On My High Quality
ITALIAN BEES and QUEENS

	1-10	11-24	25-up
2-lb. pkg. with queen	\$3.25	\$3.15	\$2.95
3-lb. pkg. with queen	4.00	3.80	3.60
4-lb. pkg. with queen	4.75	4.55	4.35
5-lb. pkg. with queen	5.50	5.30	5.10
Queens	1.00	.90	.85

Live delivery guaranteed. Prompt service
and health certificate furnished with each
order.

CARLUS T. HARPER
NEW BROCKTON, ALABAMA

3-BANDED ITALIAN BEES & QUEENS

2-lb. pkgs. with queen	\$3.00
3-lb. pkgs. with queen	4.00
Extra queens	.90

J. P. CORONA

BOX 124 KENNER, LOUISIANA

ITALIAN BEES AND QUEENS

PRICE AFTER MAY 5TH

2-lb. package bees with queen	\$2.75
3-lb. package bees with queen	3.75
Queens (postpaid)	.60
Guaranteed full weight and prompt ship- ping dates. Health certificate with each shipment.	

BAYOU BEE CO.
RT. NO. 1, BOX 49, MONTEGUT, LA.

May, 1949

You save ALL WAYS with the STOLLER *Slip-on* FRAMESPACER

Stoller Spacers fit
over, or replace, any
standard frame rest or
tin rabbet. 16 styles
and sizes.



Step up profits! Stoller's all-metal, lifetime
spacer permits 7-comb spacing in 8-frame
hives; 8 or 9 comb spacing in standard
hives, and 9-comb spacing for Dadant hives.
Made to fit shallow, deep or Lewis V Supers.
Get more wax and honey with fewer frames
and less work. Avoid mashed bees, poor
spacing. Easy to install. Tested and ap-
proved by profit-conscious producers. Write
for literature and prices.

STOLLER *Honey Farms* LATTY, OHIO

Packages Headed by Those Good Weaver Queens

ITALIANS



CAUCASIANS

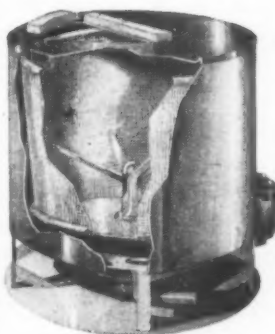
PRICES	Queens	2-lb. Pkg.	3-lb. Pkg.
1 to 24	\$1.30	\$4.00	\$5.00
25 to 99	1.20	3.75	4.75
100-up	1.10	3.50	4.50

We have some open dates in May.

WEAVER APIARIES

Navasota, Texas

Diamond Quality Bee Supplies



The Best is the Cheapest in the
long run—that's why we use stain-
less steel in our **Diamond Spinner**,
the cappings drier par excellence;
choice western pines in our hives;
and Redwood, the "wood eternal"
in our covers and bottoms. Write
for complete catalogue of bee sup-
plies. Special discounts to com-
mercial beekeepers, dealers, co-
operatives and carlot orders.

THE DIAMOND MATCH COMPANY

1300 PRODUCE STREET
LOS ANGELES 21, CALIFORNIA or

APIARY DEPARTMENT
CHICO, CALIFORNIA

If you wish to buy or sell, use American Bee Journal ads

Managing Editor—G. H. Cale

Editors—M. G. Dadant, Frank C. Pellett, Roy A. Grout

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Contents

Editorial	230	American Beekeeping Federation— The Washington Story	243
Bees for Soil Conservation—Philip F. Allan	234	The Present Relation of Insecticides to Beekeeping (Continued from April) —J. E. Eckert	244
A Visit to the Laboratory at Laramie —Roy A. Grout	236	Reva Todd—Our Choice for the Cover	245
Feeding Pollen Supplement Produced Strong Colonies—H. J. Rahmlo	238	John Gets a Few Pointers	246
Experiences with Pollen Substitute —E. E. Salge	240	American Honey Institute	248
Discussion—(Continued from April) Results from the Use of Pollen Substitutes or Supplements	241	All Around the Bee Yard—G. H. Cale	252
The History of a Breeding Project, Part II—G. H. Cale, Jr.	242	Previews of Coming Events	254
		The Postscript—Frank C. Pellett	256
		Crop and Market—M. G. Dadant	262

3-Band Italian Package BEES

Full Weight. Prompt Shipment. Young Bees

State health certificate with each shipment. Live arrival guaranteed. Replacement or refund made promptly upon receipt of bad order from your express agent.

1949 PRICES

WITH YOUNG LAYING QUEENS

Lots of	2-lb.	3-lb.	4-lb.	5-lb.
1-29	\$3.00	\$3.75	\$4.50	\$5.25
30 or more ..	2.75	3.50	4.25	5.00

Tested Queens \$2.00 each.

For queenless bees deduct 75c each from
above prices.

JACKSON APIARIES
Funston, Georgia, U.S.A.

1896-1949

IN 1949

More beekeepers than ever before
will be turning their attention to
producing Comb Honey.

The price is right—the demand is good.

We can supply your needs in Comb Honey
Sections—Section Supers—and all the
equipment necessary for production of
Comb Honey.

We are manufacturers and sell direct to
the beekeeper.

Write for our 1949 catalog listing every-
thing for the apiary at a price that is right.

MARSHFIELD MFG. CO., Inc.
MARSHFIELD, WISCONSIN
(The heart of Wisconsin's Dairyland)

Advertiser's Index

Aeppler & Co., C. W.	259, 262	Ellison & Sons, C. G.	272	Moore, Sam E.	271
Alamance Bee Co.	264	Evangeline Apiaries	263	Morrison, F. E.	263
American Rabbit Journal	263	Farmer, H. A.	232	Muth Co., F. W.	250, 273
Anderson & Co., B. A.	229	Forehand, Huber	266	Neal's Apiaries	270
Arnouville, Oscar	270	Forehand & Sons, W. J.	266	Neises Co.	261
Australasian Beekeeper	265	Foster Apiaries	266	Olive, Rupert	271
Babcock Honey Co. Inside front cover	223	Garon Bee Co.	257	Overbey Apiaries	268
Barger Apiaries	266	Girardeau Apiaries	250	Pine Bluff Bee Farms	274
Bayou Bee Co.	225	Gold Leaf Apiaries	233	Plant, W. E.	265
Beekeepers Magazine	271	Gooch Apiaries	250	Plauche Bee Farm	271
Berry & Sons, M. C.	274	Gooch & Sons, Jesse E.	268	Porter Bee Escape	225
Bessemer Apiaries	271	Guillory Apiaries, Napoleon	270	Puett Co.	268
Bessonet Apiaries	263	Halstead Apiaries	260	Red Diamond Apiaries	273
Blue Bonnet Apiaries	273	Harper, Carlus T.	225	Red Stick Apiaries	260
Bojack Co.	228	Hazel-Atlas Glass Co.	229	Rich Honey Farms	265
Bolling Bee Co.	273	Hendrix, J. W.	260	Richard, Homer W.	271
Bordelon Apiaries, B. J.	272	Henry & Sons	265	Root Co., A. I.	250, back cover
Bordelon Apiaries, E. J.	274	Homan Bros.	229	Root Co. of Chicago, A. I.	261
Brose & Stevens	233	Homan, Farris	261	Root Co. of Iowa, A. I.	225
Calvert Apiaries	251	Honey Girl Apiaries	272	Rossmann & Long	228
Canadian Bee Journal	264	Honey Sales Co.	229	Rusch & Son Co., A. H.	264
Chabaud, Adolph	265	Honey Salesman	273	Smith, Jay	270
Chrysler & Son, W. A.	250	Hummer & Sons, Geo. A.	228	Southern Queen Bee Farm	265
Citronelle Bee Co.	271	Iowa Beekeepers' Association	271	Spears' Apiaries	250
Clover Bee Farms	260	Irick, F. O.	226	Standard Rabbit & Pet Journal	271
Coffey Apiaries	267	Jackson Apiaries	226	Stoller Bee Farms	225
Corona, J. P.	225	Jensen's Apiaries	259	Stover Apiaries	253
Cottage Hill Apiaries	229	Johnson, Carl E.	233	Sunkist Bee Co.	251
Cotton Belt Apiaries	272	Kelley Co., Walter T.	273	Sunny South Apiaries	272
Couch, Louis L.	263	Koehnen's Apiaries	263	Superior Honey Co.	267
Cuprinol Division, Darworth, Inc.	229	Leverette, Walter D.	257	Tanquary Honey Farms	253
Cushman Motor Works	271	Lewis Co., G. B.	264	Taylor Apiaries	273
Cutts & Sons, J. M.	270	Little & Moore Apiaries	264	Tung Oil & Paint Mfg. Co.	265
Dadant & Sons	233, 263, 269, 271	Little River Apiaries	265	Victor Apiaries	271
Daniels Apiaries	255	Lohman Bee Co.	270	Weaver Apiaries	225
Daniels & Co., R. C.	227	Lotz Co., August	227	Western Canada Beekeeper	263
Davis, Thomas S.	263	Lucedale Apiaries	270	White Pine Bee Farms	263
Diamond Match Co.	225	Macy Electric Knife Co.	261	Wicht Apiaries	233, 273
Dotson Apiaries	260	Marshfield Mfg. Co.	226	Wilbanks Apiaries	267
Ducote, Alvin J.	250	McCord Mfg. Co.	265	Williams Apiaries, Dr.	273
Dupuis Apiaries	271	Merrill Bee Co.	228	Wing & Sons, J. E.	272
Eells Honey & Bee Co.	265	Michigan Bee & Farm Supply	265	Winslett, D. T.	263
		Miller, John G.	251	Wixson, Roscoe	273
		Mitchell's Apiaries	251	Woodman Co., A. G.	224, 257, 272
		Modern Beekeeping	263	York Bee Co.	266



LEWIS BEEWARE

STANDARD OF THE BEEKEEPING WORLD

Announcing—

We have arranged to stock and sell throughout the United States the famous LEWIS BEEWARE and DADANT'S FOUNDATION and beekeepers' supplies of all kinds. Make up your order from catalog and mail direct to us. Quantity discounts allowed. Bee hives, foundation, comb foundation, smokers, vells, bottles honey cans, PACKAGE BEES and QUEENS—anything you need.

In offering an already established line of bee supplies it is not necessary for us to distract from our specialty of bee breeding. It will pay you to contact us. We intend with your support, to build up a supply service throughout the United States where you can buy the best there is at reasonable prices.

R. C. DANIELS & CO.

PICAYUNE, MISSISSIPPI

An Independent and Separate Service of The
Daniels Apiaries

DADANT'S FOUNDATION
CHOICE OF EXPERT BEEKEEPERS

MAKE THIS YEAR A COMB HONEY YEAR

INCREASE YOUR PROFITS BY
RAISING HONEY IN OUR CLEAR,
BASSWOOD MILL RUN
SECTIONS

We have a complete line of sections, section supers and fittings. Also hives, foundation, tools, containers and all bee-keeping supplies of the highest quality at prices that are right.

WRITE FOR OUR 1949 PRICE LIST

AUGUST LOTZ COMPANY

Manufacturers and Jobbers of Bee Supplies

Boyd,

Wisconsin

HURRY! — LOOK — BUY NOW!

A car load of Bee Hives ordered by customer, cancelled—his loss your gain.

First Quality—Dove Tail Corners—White Pine—Aluminum Covers.

10-Frame—Aluminum covered—with inner cover \$4.90 each, Wt. 31 lbs.

10-Frame—Full depth supers with frames 2.30 each, Wt. 13 lbs.

10-Frame—Shallow super with frames 1.47 each, Wt. 9 lbs.

Standard brood frames, 100 lots \$4.02 each

Shallow brood frames, 5 $\frac{3}{8}$ ", 100 lots 3.10 each

ALL PRICES F. O. B. TONGANOXIE, KANSAS.
ADD POSTAGE.

This lot won't last long at these prices, so order now, as first come first served. Send check or money order—Don't send cash—No. C. O. D.

The BOJACK Co.

TONGANOXIE, KANSAS

LOOK HERE **OUR 38th YEAR**

500,000

200,000

Queens

Packages

Have been shipped to beekeepers in 37 years, and all we want to prove is that our Queens and Bees are as good as any, is a trial order.

WHOLESALE PRICES TO EVERYONE

ITALIAN

2-lb. packages with queens	\$3.00	
3-lb. packages with queens	3.75	Any
Untested queens	1.00	Number
100 or more queens	.80	

If queenless packages are wanted, deduct price of queens. Queens clipped or air mail at no extra cost.

MERRILL BEE CO.

STATE LINE, MISSISSIPPI

MISSISSIPPI'S OLDEST SHIPPERS

HUMMER'S

Package Bees—Italian Queens

Live arrival—Prompt shipment—Overweight packages headed by young queens from proven high producing stock. Satisfaction guaranteed.

	Queens	2-lb.	3-lb.	4-lb.	5-lb.
1 to 50	\$1.20	\$3.50	\$4.50	\$5.50	\$6.50
Over 50	1.00	3.25	4.25	5.25	6.25

Queens airmail postpaid—
No charge for clipping.

GEO. A. HUMMER & SONS

Established 1892

Prairie Point, Mississippi

Wire or phone, Macon, Mississippi



You Are the Judge
Your Decision is Final

Will you buy Package Bees this year, or allow your equipment to stand idle.

If you buy bees, will it be on the basis of price or quality, service, and reputation of the producer?

We believe we can give you more than your money's worth in satisfactory bees, queens and service.

Our queens are bred for production as well as other qualities necessary for honey production.

2-lb. package bee with young queen \$4.00

3-lb. package bee with young queen 5.00

1 frame brood where state permits, \$1.00 extra

Queenless bees deduct per package \$1.25

"THEY PRODUCE"

Rossman & Long

P. O. BOX 133

MOULTRIE, GA.

Do Your Hives ROT?

Here's a practical wood preservative against rot and insect attack, easily applied by brush, spray or dip.

CUPRINOL[®]
STOPS ROT

To quote L. A. Harcourt, of England, in AMERICAN BEE JOURNAL of December 1938:

"The initial application of Cuprinol provides a lasting protection and saves annual recurrent work and disturbance . . . The smell quickly disappears if the hive is exposed to the air for a few days, and bees do not object to occupying a freshly treated hive. Cuprinol penetrates deeply without heat or pressure. It is clean and harmless to use."

Cuprinol is applied to the bare wood, and can be painted over. A gallon treats about 400 sq. ft. of lumber.

You will find Cuprinol in many hardware, florist supply, marine stores and lumber yards. Or send for literature, and order direct—\$3.90 per gal., \$1.45 per qt. postpaid. Check or money order. No C.O.D.'s.

CUPRINOL Division, Darworth, Inc.
61 Maple Street Simsbury, Conn.

QUALITY THREE-BANDED ITALIAN

PACKAGE BEES AND QUEENS

Try our introductory offer:

FOR MAY ONLY:

QUEENS, ANY NUMBER, 70 CENTS EACH

Write for circular and prices.

COTTAGE HILL APIARIES

RT. 2, BOX 61 MOBILE, ALA.

—HONEY WANTED—

CARLOADS AND LESS THAN CARLOADS
Send samples and quote best cash price delivered to us. All grades.

HONEY SALES COMPANY

1806-08 No. Washington Ave.,
Minneapolis 11, Minnesota

PACKAGE BEES AND QUEENS

2-lb. pkg. with queen \$2.80
3-lb. pkg. with queen 3.85
Queen, each80

Health certificate, and live
delivery guaranteed.

HOMAN BROS.

Rt. 2 Shannon, Mississippi

Honey is produced in hives

Honey is sold in **H-A** jars



HAZEL-ATLAS GLASS
COMPANY Wheeling, West Virginia



LIGHT COLORED ITALIAN BEES AND QUEENS

2-pound bees with queen \$2.50

3-pound bees with queen 3.25

Additional pound 75 cents.

Untested queen 75 cents.

Queens after June 1, 60 cents; 100 up 50 cents each.

B. A. ANDERSON & CO.

Opp, Alabama

A trial will convince you—A-B-J ads produce results



• As We

Controlled Agriculture or Free Enterprise

THE BEEKEEPING INDUSTRY HAS BEEN asking the U. S. Department of Agriculture since last September for a price support program at a reasonable level of 75 per cent of parity or 12 cents to the honey producer. Secretary of Agriculture, Charles F. Brannan, has the authority to give the industry price support but he has been reluctant to do so. The honey industry is morally opposed to the general price support program but finds itself very much out of step with other farm groups which are granted price support. They asked for a reasonable price support program because they thought it was the only way to prevent drastic reductions in numbers of colonies needed for the pollination of more than fifty food and seed crops.

Now Secretary Brannan has announced a new program designed to guarantee overall farm income. His proposal has staggered Congress and disrupted many of their farm program plans which have been in process for several months. His proposal simply stated is government-controlled agriculture. Do we want controlled agriculture or do we want free enterprise? Do we want a system of controlled economy for one group of people—a system that is likely to be extended to all groups? Does the beekeeping industry want to become involved in such a program? We think the answer is, "NO!"

Government Honey Purchase May Help Stabilize Markets

ON APRIL 1, THE U. S. DEPARTMENT OF Agriculture announced that it would purchase up to 12 million pounds of Grade A table quality honey for use in school lunch and institutional feeding programs. Details of the purchase are given elsewhere in this issue. The beekeeping industry is grateful to Washington officials and our representatives in Congress who helped to make this purchase possible.

Although the purchase will not be made on the basis requested by the beekeeping industry (assuring 12 cents to honey producers f.o.b. their local shipping point), it will do much good through removing a substantial part of our 1948 surplus in a manner that will not depress our honey markets. In fact, from reports received from some areas, it should tend to stabilize our markets at a better level than they now are. This purchase program could well be a turning point toward improved market levels for honey. Whether it will be or not can only be determined by the industry itself through a resolve to maintain market prices at a level that will assure the beekeeper a profit, and through improved and effective methods of marketing. Honey is one of the finest natural products on earth! Let's tell the world how good it is!

Price Support for Legume Seeds

ON MARCH 21 THE PRODUCTION AND Marketing Administration of the Department of Agriculture at Washington announced a price support program in 1949 for farmers to encourage increased production of hay, pasture and range grass seeds.

The pasture and hay seeds include alfalfa, the various clovers, lespedeza and various grasses. Several range grasses are included in the program. The amount of support in the program ranges from a nominal 8 cents on Hubam clover to as high as \$1.25 a pound on certified Ladino clover. All supports apply on 1949 gathered seed. Though all support prices are below the prevailing prices on these seeds, still they will undoubtedly have the effect of influencing farmers to save every possible stand of legumes for seed production.

This, no doubt should benefit the beekeeper, especially as conservation and extension authorities are just now impressing on our farmer friends, the advantages of the help of bees in seed set.

If in 1949 our major crops are again raised

See It •



in abundance, it seems likely that the next step of the Department of Agriculture will be to institute acreage controls over wheat, corn, and cotton, to reduce surpluses in 1950 and beyond. Some estimates have been made that this new program might mean the retiring, in 1950, of some 20 millions of acres into legumes and grasses for hay, pasture or seed. Such a program means quantities of seed will be necessary and again should mean increasing acreages of nectar producing plants.

Complete schedule of support prices and other information may be obtained by addressing the Production and Marketing Administration at Washington, D. C.

In the field, the program will be directed through State P. M. A. and through county agricultural conservation committees.

Increase Postage Rates?

THE POST OFFICE DEPARTMENT HAS submitted to Congress a bill raising postal rates on newspapers and magazines. In an editorial, the Des Moines Register calls attention to the fact that this proposed increase would raise the cost of postage on that newspaper to the average Iowa farmer from the present \$1.52 to \$4.85 the first year, and \$7.27 the second year. Many farmers will do without the daily paper rather than pay the higher cost. One of the large national magazines estimates that it will cost them about two million dollars more a year.

The cost of higher postage must fall on the reader, especially in the case of specialized publications of limited circulation like the American Bee Journal. Our magazine can be distributed only through the mails, while the big newspapers and magazines deliver a large proportion of their subscriptions by freight, truck, or carrier delivery. With the large circulation they are able to interest more advertisers and get a much larger proportion of their income from the advertiser, while we feel that already our advertisers are bearing their full share of

the publication burden. Our only recourse would be to increase our subscription price. Under the new rates our postage bill would be trebled the first year, and that amount doubled the second year.

The Hoover Commission has just reported to Congress and the President its conclusion on ways and means of curtailing government expenses. By combining some government functions, limiting others, and by more efficient methods of management, the Commission believes it would be possible to save two or three billion dollars a year. Couldn't this be done in the Post Office Department?

This question is "on the fire" now. Increased postage means a larger subscription price, means fewer readers, means less revenue to the Post Office Department; translates into a red-ink loss of operation, and again the need for higher postal rates. A vicious circle. We intend to let our representatives in Washington know how we feel. Similarly, letters from our readers to their congressmen are needed.

A Risky Practice

A NEWSPAPER CLIPPING HAS BEEN received which gives an account of a truckload of bees overturned on the highway. Traffic was snarled and passersby continued to be stung for nearly a week. Too many beemen are moving large outfits without confining the bees and thus offering a traffic hazard which may prove very costly. The driver of every car which passes after such an accident is in danger of being stung. Most persons are so afraid of bees that a single one may cause them to lose control of the car. Several cases have been reported where fatal accidents have occurred due to fright when a bee flew into the moving automobile.

The beekeeper who moves his bees without closing the hives should bear in mind that costly litigation is likely to follow in case of an accident which release the bees on the highway.

Alexandre Colin

The death of a significant personage during 1948 was that of Alexandre Colin, of Belgium. He had been connected with Belgian beekeeping for more than 40 years and was president of the "Unions des Federation Provinciales d'Apiculture de Wallonie," consisting of more than fifty branches. The esteem of his colleagues may be measured by the appearance recently of a 32-page obituary and eulogy of Mr. Colin. He was a leader who was self-effacing and sacrificing for the good of Belgian beekeeping.

1948 Honey and Beeswax Production

Final reports on 1948 honey and beeswax in U. S. A. as shown by the Department of Agriculture give a total production of 206 million pounds of honey and four million pounds of beeswax or about a ten per cent drop in honey and a 12 per cent in beeswax under 1947, but 3 per cent above the ten-year average.

Average per colony production was 36.1 pounds of honey. California re-

turned to first place in honey production with 22½ million pounds, with Minnesota, New York, Ohio, Michigan, Florida, Montana, Pennsylvania, Wisconsin, and Iowa following in order. With a bad season Iowa dropped from first in 1947 to tenth in 1948.

Apparently beekeepers are forearmed, as more honey was left on the hives for winter than in previous years. We urge our readers to get a complete report of "Honey and Beeswax Production for 1948" from the Bureau of Agricultural Economics in Washington for their files.

Another New Book

"City of the Bees" is the title of a new book on bees, written by Frank S. Stuart and published by Whittlesey House, New York. The price is \$3.00.

This is a different kind of bee book. It contains no information regarding the care of bees or the production of honey nor does it have any illustrations. It is the story of the life of a colony of bees in a hollow tree and is written in a most entertaining manner. The author has a most unusual command of language and his descriptions of bee life and bee ac-

tivity are very vivid. The general reader who wishes to know more about the life history of the honeybee and the activity of the colony will find a satisfactory presentation in this new book.

Iowa Report

The annual report of the Iowa State Apiarist for the year 1948 is ready for distribution. This year's report contains 114 pages of unusually valuable material.

There are so many really good papers included that space will not permit mention of them all. Much of the important recent research is discussed in detail and includes problems of bee pasture, control of sweet clover weevil, value of honey as food and factors affecting its color.

Genetics and breeding, problems of management and control of diseases all are given attention. Among the authors of the various papers are many of the well known men in the beekeeping field.

This report is the kind of publication of value for permanent preservation and every serious student of beekeeping will want to include it in his library. The report is sent free. Write to F. B. Paddock, Ames, Iowa.

Prices Reduced to Meet Honey Prices

The year of 1949 is here. We all want to make the best success possible for this season and years to come. Mr. Beekeeper, large or small, let us help make your 1949 season one of the most successful ones in history with our highest prime quality three-banded improved strain of package bees and queens.

Time and bees wait for no man, it is time to place your orders for your 1949 requirements. In doing this we know you must have your bees and queens on time, you must have "HIGHEST PRIME QUALITY" for your money. This we have to offer you, backed by over 30 years careful selecting, breeding and shipping to all points in U. S. A. and Canada with 100% perfect satisfaction guaranteed to every one, in every respect.

You get each season's improvements when buying from us, what we mean, each season we select the best for honey producing qualities, disease resistant qualities from many hundreds of best by test colonies. Our breeding and mating stock is carefully picked and tested out for the coming season for your benefit, sparing not labor nor money in producing the best with patience and long experience which we feel are surpassed by none. Mating is very important in breeding the best strain of bees, we carefully select our drone colonies for mating in quality same as breeders.

Book your orders now to reserve your specified shipping date. No customer will be disappointed when booking their orders with us. Your bees are guaranteed on time, our prices for 1949 are as follows—one-fourth down payment with order, balance due 10-days before your specified shipping date.

	Queens	2-Lb. Pkg. with Queen	3-Lb. Pkg. with Queen
1-24	\$1.25	\$4.00	\$5.00
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TELEGRAPH AND EXPRESS OFFICE DOTHAN, ALA.

**UNITED STATES DEPARTMENT OF AGRICULTURE
PRODUCTION AND MARKETING ADMINISTRATION**

Washington, April 1, 1949

USDA to Buy Table Grade Honey:

The U. S. Department of Agriculture announced today that purchase will be made of up to 12 million pounds of domestically produced table grade honey of the 1948 production, for use in School Lunch and institutional feeding programs.

Prospective vendors, including beekeepers, associations of beekeepers, assemblers, processors or their authorized agents, will be invited soon to submit offers to sell honey. Purchases will be confined to honey meeting the requirements of U. S. Grade A and will be on an offer and acceptance basis. Vendors other than beekeepers will be required to certify that they have paid beekeepers not less than 8.5 cents per pound net for Buckwheat, 9.0 cents per pound net for Light Amber, 10.0 cents per pound net for Extra Light Amber and 10.5 cents per pound net for White extracted honey delivered to vendor's plants and subsequently delivered to the Department under this program.

Additional program details may be obtained by communicating with Mr. Harold J. Clay, Fruit and Vegetable Branch, Production and Marketing Administration, USDA, Washington 25, D. C. Telephone Republic 4142, extension 5775.

The von Frisch Lectures

In a series of three illustrated lectures at the American Museum of Natural History in New York City, April 4th, 5th, and 6th, Dr. Karl von Frisch of the University of Graz, spoke on three phases of bee behavior: color sense, the senses of taste and smell, and the language of the bees.

The first talk dealt with training bees to come to colored feeding stations. These were made of a sheet of colored cardboard, with a plate of sugar water on it, surrounded by cardboards of other colors. When the food was removed and the empty cardboards placed in a new but nearby location, the bees returned with facility to the empty color to which they had been trained to come for food. It was found that a bee trained to blue will return to blue, violet or purple, one trained to yellow will return to yellow, orange or green, but that a bee trained to red is red-blind, and will flounder. Bees can distinguish color, but not always with certainty.

Experiments in training bees to scent were discussed the second evening. A food box with an entrance hole and furnished with scent and food was placed in a line of

similar boxes, and its comparative position changed frequently. Bees located the new position, so it was concluded that they have a sense of smell as the food could not be seen, and that scent is a more controlling factor than color. There was also some discussion of the bee's sense of taste, mentioning the varying sugar solutions bees will accept, and how in a honeyflow period bees will work the flowers with the sweetest nectar so that some fruit bloom will be neglected.

The third lecture was devoted to the language of the bees—the bee dance, and how it is a means of communicating information about nectar sources.

The three lectures were interesting and skillfully delivered and introduced a personality who has done much original investigation in this field.

Reported by
Addison Webb, New York.

* Further information on these experiments is available in an article by Dr. Krogh, Scientific American, August, 1948; and in the Bulletin of Animal Behavior, 1947. Also in "The Language of the Honeybees," by Mykola H. Haydak, A.B.J., Sept., 1945, p. 316-17, and in "The Personality of Animals" by Prof. H. Munro Fox, published by Pelican Books in pocketbook size.

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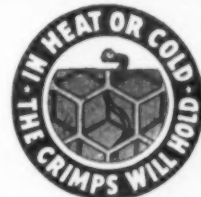
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(At left) Volunteer alsike, seeded twelve years before in corn. (Above) Richard Neumann, Sequin, Texas, has 32 colonies of bees on his farm, in various spots. This hive is near cotton and hubam.

Bees For Soil

by Philip F. Allan

WE all know that many plants—especially the legumes—require insect pollination, but there is a new development in the use of bees for pollinating services for plants used in soil conservation work. That development is the cooperative effort of beekeepers, soil conservation districts, and the Soil Conservation Service, in putting their knowledge to work on a practical, organized basis.

Soil conservation has expanded greatly during the past decade. There are now more than 2,000 soil conservation districts, all needing legume seeds. Legumes are especially im-

portant in soil conservation because they provide cover for the soil, halt breaking away and washing, improve soil fertility through the fixation of nitrogen, and improve the structure of the soil. Some of them yield important hay crops.

Through the decline of wild pollinating insects and with the loss of fertile soils through erosion, the per-acre production of many sorts of legume seeds has declined. In spite of increased land planted to legumes, better varieties, and more efficient farming methods, the total production is less than it was twenty years ago. There are two ways of revers-

ing this trend—one is better land use and the application of conservation farming measures the other is planned use of pollinating insects. Both are important to successful farming.

In the Western Gulf Region—Arkansas, Louisiana, Oklahoma, and Texas—a major legume seed production industry is developing and planned pollination is rapidly becoming an essential part of it. Due to the efforts of the Soil Conservation Service and the work of soil conservation districts, vetch seed production in Texas alone has expanded until the 1946-47 harvest was 3,500,-



(At right) Hubam clover in rows on farm of Johnny Barabas, Bartlett, Texas. (Above) Colonies increase seed yields in legumes in soil conservation.



Conservation

Chief, Biology Division, Soil Conservation Service, Fort Worth, Texas.

000 pounds. The yield of Hubam clover in 1946-47 was 11,500,000 lbs. Madrid clover is important and other legumes introduced or expanded through soil conservation work, include kudzu, sericea lespedeza, *Crotalaria spectabilis*, Singletary peas, blue lupine, guar, Ladino clover, evergreen sweet clover, big trefoil, and bicolor lespedeza. While not all of these are of interest to the beekeeper, many of the poor honey producers still require insect pollination. The use of white Dutch clover, Alsike and hop clovers is spreading for pasture improvement.

The first step in the planned polli-

nation program was taken in January, 1946 by the Soil Conservation Service. The Regional Biologist assembled material on the subject from the Division of Bee Culture, and from the practical experience of expert beekeepers. With the help of the Regional Agronomist of the Service, this material was tied in closely with other soil conservation work, and was issued to inform the field personnel of the Soil Conservation Service and the supervisors of soil conservation districts of the need for bees. It was suggested that soil conservationists bring the facts to the attention of farmers whose farms

were being planned for conservation. It was also suggested to district supervisors that they might get in touch with beekeepers to arrange for pollinating services. The response was most favorable—in 1948 more than 85,000 acres of legumes were serviced with bees.

Now, what have soil conservation districts been doing? The boards of supervisors in many districts have been encouraging cooperators to make full use of beekeepers' services. They have arranged opportunities for beekeepers to speak before groups of farmers and have

(Please turn to page 267)

A Visit to The Laboratory At Laramie

by Roy A. Grout

THE Intermountain States Bee Culture Laboratory of the Division of Bee Culture, Bureau of Entomology and Plant Quarantine, was established in co-operation with the University of Wyoming at Laramie on November 1, 1926. Dr. Arnold P. Sturtevant, the senior member of the Division of Bee Culture from the standpoint of length of service, was placed in charge, assisted by Dr. John E. Eckert, who is now with the University of California. In the 22 years of its existence, this field laboratory has contributed much to our present-day knowledge of bee behavior and diseases of honeybees.

Dr. Sturtevant is a bacteriologist who began his career in public health work and was in charge of the Tuberculin Laboratory of the H. K. Mulford Company. He left to study bacterial diseases of bees at Massachusetts under Dr. Burton Gates. At that time, the principal studies of diseases of bees in this country had been made by Dr. G. F. White and Dr. A. H. McCray of the Division of Bee Culture, Bureau of Entomology.

When Dr. McCray left Washington, Dr. Sturtevant joined the staff of the Division of Bee Culture on December 4, 1916, at the invitation of Dr. E. F. Phillips, who was in charge at the time. Dr. Sturtevant carried on his researches there for ten years before going to Laramie.

Throughout the years that the Intermountain States Bee Culture Laboratory has been in existence, its major project has been the study of diseases of honeybees. It has, however, not confined its work entirely to that field. Whenever opportunity permitted, those at the station studied other phases of bee behavior and colony management. It was here that Dr. Eckert made his studies on the flight range of the honeybee. Dr. C. L. Farrar succeeded Dr. Eckert in 1931, remaining there until he left to take charge of the North Central States Bee Culture Laboratory, at Madison, Wisconsin, in April of 1938. While at Laramie, Dr. Farrar began his studies of the two-queen system and other phases of colony management, including the relation of pollen stores to successful wintering.

At present, the experimenters at the field station include Dr. C. E. Burnside, well-known authority on diseases of bees, who came there from Washington, October 1, 1942; John D. Hitchcock, who received his appointment August 1, 1936 and I. L. Revell, who was appointed on July 8, 1942. Another member of the Division of Bee Culture, Dr. A. W. Woodrow, now at Columbus, Ohio, until fairly recently contributed to the work of this field laboratory through his studies on the susceptibility of larvae to American foulbrood and the behavior characteristics of disease-resistant bees.

For more than ten years, the Intermountain States Bee Culture Laboratory has had as a major project the study of strains of bees to determine their resistance to American foulbrood and the development of the resistant character. From 1937 to 1945, naturally mated lines were tested with the result that while there was a definite trend of improvement in resistance to American foulbrood, the percentage of resistance tended to level off at a point ap-





preciously under 100 per cent resistance. From 1943 to date, these lines of breeding have been improved to 100 per cent resistance through controlled mating of queens by means of artificial insemination. Such queens are inseminated at the Baton Rouge laboratory and sent to Laramie for testing.

The testing for disease resistance has been largely confined to three inbred lines or strains of honeybees. Succeeding generations bred from tested and selected queens of these strains are introduced to package colonies each year, and colonies are inoculated with infectious material, and disease counts are taken at regular intervals throughout the season. While such inbred lines are testing 100 per cent resistant to American foulbrood at the present time, the bees do not build as strong colonies, are shorter lived and are not as good honey gatherers, seldom producing

a super of honey in a location where good colonies produce considerably more than that amount.

When the inbred lines are crossed, high resistance is retained and apparent hybrid vigor immediately appears, so in recent years certain hybrid crosses have been tested for honey production. In addition to keeping production records on these colonies, brood counts are made at regular intervals to study the performance of the queens. A group of colonies headed by queens bred in 1947 by three-way crossing between lines that had been inbred several years for production only, are doing well in their second year of service. They are heading colonies that are just as good or better in honey production than the component inbred stocks or the best common stock. The resistance of this group, however, is not as high as crosses between the highly resistant lines.

In their experimental work at Laramie, they are continuing individual inoculations of larvae when of an age susceptible to American foulbrood. At present, they are trying to determine the relationship, if any, between the time and type of feeding of sulfathiazole and the susceptible brood period (up to 2 days, 4 hours of the larva's life) by feeding sulfa sirup at the time of inoculation, as well as by other methods of treatment. While these experiments are incomplete, they have shown that the feeding of sulfa sirup at the time of inoculation seems to prevent the larvae from succumbing to the effects of foulbrood. On the other hand, they have shown that sulfathiazole has no effect on the spores of *Bacillus larvae*.

In their work with sulfathiazole treatment of American foulbrood, Dr.

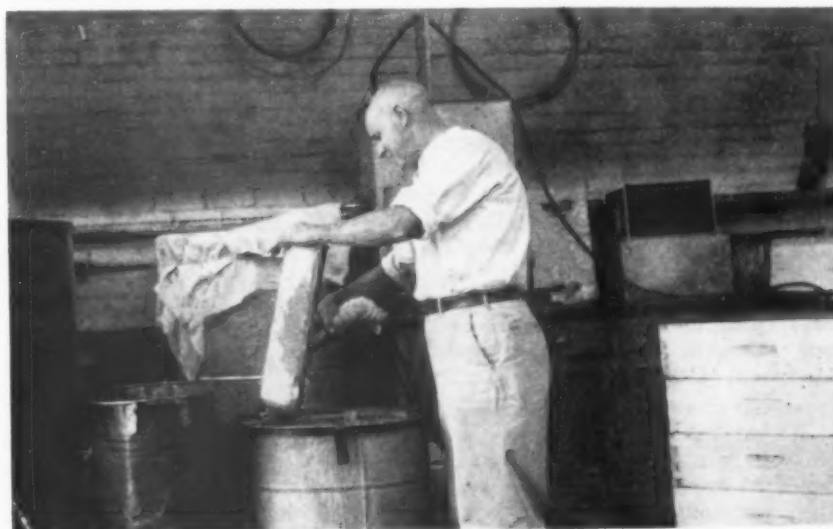
Sturtevant and his co-workers have found that, with the exception of an occasional colony, the continuous feeding of sulfa sirup may cause all visible evidence of American foulbrood to disappear. They have determined the fact that the disease may recur unless the drug is fed through a long enough period for all of the infectious material to be eliminated from the combs of the colony. Discontinuance of treatment or carelessness may permit the disease to return.

Inasmuch as Mr. Hitchcock, by means of very detailed observations, and Dr. Burnside, in connection with sample diagnosis, have observed that bees will store pollen and honey in cells containing the remains of larvae dead from the disease, and since the period in which this disease material remains in the cells may be long, it is apparent from these and other observations that the feeding of sulfa sirup to colonies infected with American foulbrood cannot be considered a positive cure in all cases. Thus, they still feel that diseased colonies should be killed and the equipment disposed of, but see nothing wrong with the preventive feeding of sulfa in some form where American foulbrood may be prevalent in a locality.

They also have observed that when sulfa sirup is fed continuously to bees in cages, the length of life of worker bees is slightly shortened, but the bees in colonies treated with sulfa were not noticeably affected. As sulfa is fed to the colony, more brood tends to die in the pupal stage after the cells have been sealed than in the larval stage, indicating that the drug has slowed up the effects of the disease. Their work has shown that soluble sodium sulfathiazole and the

(Please turn to page 261)

(Top of page) Dr. Arnold P. Sturtevant, in charge. (Lower picture, on left of opposite page, John D. Hitchcock; (Right, on opposite page) Dr. Sturtevant in the apiary; (At right) I. L. Revell, in the honey house.





(Lower left) A quick way of feeding sugar sirup in early spring. Warm sirup is sprayed into the comb with a sprinkling can. (Top left) Dr. C. L. Farrar takes out a comb of brood in the second brood chamber on April 2 while southern Wisconsin beekeepers look on. There was a total of eleven combs of brood in this colony. (Top right) Brood in three combs on March 12 following a decrease in brood rearing due to lack of pollen. Supplement was fed on March 3 and the pattern improved by March 12.



Feeding Pollen Supplement

THE question of whether it pays to feed pollen supplement early in the season was answered for about 30 southern Wisconsin beekeepers who spent a most interesting afternoon, Saturday, April 2, with Dr. C. L. Farrar of the Central States Bee Laboratory, Madison, inspecting overwintered colonies.

Beekeepers had requested the session at a meeting of the Southern District of the State Association held in Janesville, Wisconsin, in March. They wanted to see if outdoor wintering with no protection except a windbreak, plus feeding pollen-soybean flour cakes in late February and March will really pay.

Imagine everyone's surprise when Dr. Farrar announced that the first colony he was about to open had 11 frames of brood. "It can't be possible," we thought. But it was true.

He took out each of the 11 frames. It was one of the strongest colonies in the yard and above the average. We had hoped to get a picture of the 11 frames but there were just too many to be handled that way. Asked how many frames the 48 colonies in the yard would average, Dr. Farrar answered, "At least six."

Pollen supplement feeding was begun this year on February 18. Each colony had been fed about 3 pounds of supplement just two weeks before we met, but in spite of a trace of pollen coming in from maples which were just beginning to bloom, most of them had already consumed the cakes and were ready for more. Up until that time, April 2, the 285 colonies operated by the Central States Bee Laboratory had been fed 1500 pounds of the pollen supplement.

How Supplement Is Made

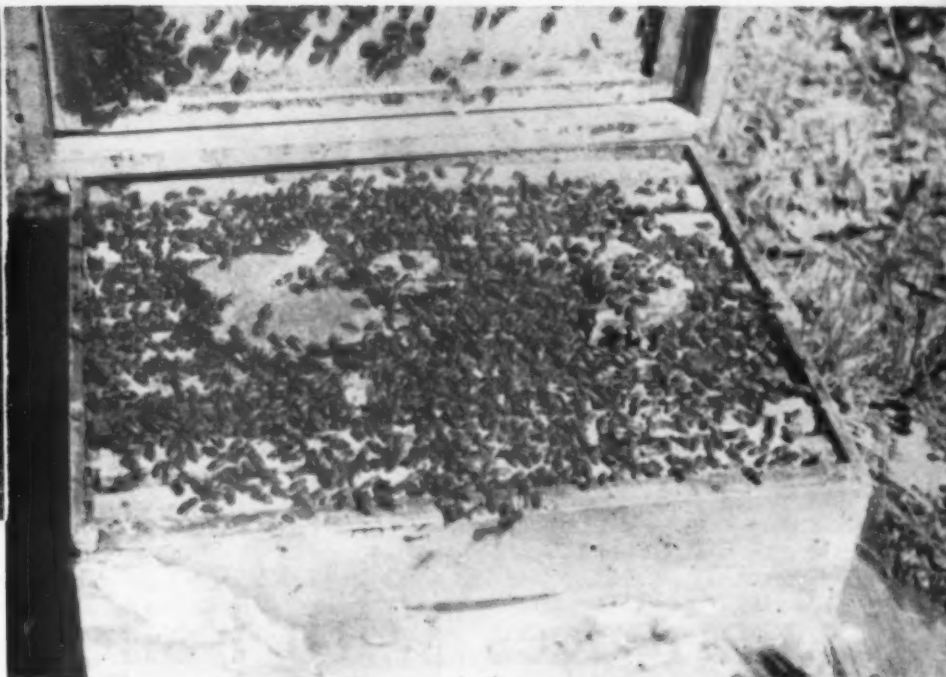
During the afternoon Dr. Farrar answered a number of questions. These points were brought out: The pollen-soybean flour cakes are made by mixing one part of natural pollen to three parts of soybean flour. The method is described in circular E 531, which may be obtained from the Division of Bee Culture, U. S. Dept. of Agriculture, Beltsville, Md.

There is a wide difference in the food value of various soybean flours. Only that made by the expeller process should be used. Asked if he had found any substitute for pollen, Dr. Farrar said, "No, while the natural pollen-soybean flour mixture has given almost as good results as pollen alone, no other supplement tested has been as good."

Soybean flour alone does not give as good results as the mixture. The



(Above) A box of pollen supplement ready to be placed over the brood combs. (At right) Remains of pollen-soybean flour cake fed directly over the combs containing brood.



by H. J. Rahmlow

Produced Strong Colonies

bees do not consume as much of it and consequently do not produce as much brood.

The supplement should always be fed directly on the frames containing brood. During inclement weather, and that is when the bees need it most, they will feed on the supplement only if it is available on the frames covering the brood. Bees do not move pollen as they do honey.

It is advisable to continue feeding pollen during April and May in case there are periods of inclement weather when no pollen can be gathered. A slump in brood rearing during these months will mean a reduced population and consequently reduced honey production in June.

Feeding Maintains Brood Rearing

In the March issue of the American Bee Journal—page 124, we described

the progress of a colony which had considerable brood on January 14. On February 5 this colony had three frames with fair-sized areas of brood. The picture taken on February 5 shows pollen areas as well as honey in the combs containing the brood. On March 2, we again inspected the colony and found slightly less brood than shown on February 5. Examining the combs we found the pollen and most of the honey had been consumed. We realized that unless a supplement was fed there would be a decrease in brood rearing with consequent dwindling of the colonies in April when it is so important to have a large population. We immediately fed soybean flour and on March 12 the brood pattern had improved considerably. The pollen supplement was then fed every week thereafter with excellent

results. The first week in April the colony had six frames of brood.

It is interesting to note that every colony in our four yards, with only 4 exceptions, consumed the supplement given them in about 10 days. Those which did not do so were inspected. Two were queenless and two had very poor queens. It made no difference if there was pollen in combs in the middle or lower brood chamber—they ate it just the same.

We might point out that the Central States Bee Laboratory has not recommended feeding any other mixture than the one described here—one part natural pollen and three parts soybean flour made by the expeller process.

Wisconsin.



(Left) Even a cardboard box of dry mix draws bees in sunny weather. (Right) Salge's "shelter" and his tray for pollen substitute

Experiences With Pollen Substitute

by E. E. Salge

THE first time I took a pollen substitute to an out apiary three years ago, I was immediately impressed. It was the first week in January when even in this extreme southern section there is but little natural pollen available. I had placed about half a bag of soy flour on my truck and upon arriving at the yard left it to do other work. When I returned I found the soy flour on the truck alive with bees. They were packing it in their pollen baskets as if gathering natural pollen.

Up to this time all the information I had gathered referred to feeding substitute in cakes inside the hive. The addition of natural pollen was recommended and many beekeepers add it to the pollen substitute which no doubt is of benefit to the bees. I have never added natural pollen, but use only a mixture of five parts soy flour and one part brewer's yeast, feeding it dry outdoors.

As every beekeeper seemed to be feeding substitute inside, I placed in each hive about half a cupful of flour on waxed paper on top of the brood frames and then replaced the cover. When I returned I was disappointed to find that the bees had used very little of the flour and mold was starting from the moisture

under the covers. Remembering how eagerly the bees had taken the flour on the truck, I removed it from all the colonies, discarded the moldy part, placed the remainder in a tray and set it out in the open. With a hive cover over the tray, propped up to allow the bees easy access, it was protected from rain.

I returned to this yard three days later and found the tray completely empty and a large number of bees searching for more. I refilled the tray and soon there was a swarm of bees again working the flour. Why did the bees take the flour eagerly when it was outdoors and almost completely refuse it when it was in the hive?

I found that nearly every queen in this yard had started egg laying, while the week before there were no eggs. No sugar syrup had been fed and the feeding of the pollen substitute was the sole stimulant to egg laying. The colonies were reasonably well supplied with honey in the combs and some colonies had a little reserve of natural pollen, but they did not begin brood rearing until the substitute was taken.

It would seem reasonable for the bees to store a portion of the substitute in the combs, but I have

never seen any appreciable amount. I examined recently a yard which was moved in from north Texas where we had a very severe drought last year, and absolutely no pollen for winter was stored. This yard has been taking substitutes for about five weeks now and only the very strongest colonies with about five frames of sealed brood and a little open brood had a small amount stored. The weaker colonies had no pollen substitute stored and averaged about three frames of brood, mostly unsealed. So I concluded that the weaker colonies were using flour as fast as it was brought in while the strong colonies, not having much unsealed brood, were able to store some of the substitute. I now put on syrup feeders when the substitute is set out as this is a better stimulant than feeding either one alone.

The closer we follow the natural habits of bees, the better the results will be with the possible exception of swarm control. So, in feeding, we get better results if bees bring in food naturally. It is not natural for them to find their fresh stores within the hive. Even with ample reserves in the hive, spring brood rearing does not get into high gear

until food is available from the field. And a fresh source of pollen is more of a stimulant than a fresh supply of nectar. Feeding syrup outdoors is more effective as a stimulant to brood rearing, but it does put a terrific wear on the bees.

Of course, there are places where pollen substitute must be fed in the hives or it cannot be fed early enough, but I still think that the activity of bees actually bringing in pollen substitute or syrup has as much effect on stimulating brood rearing as the food itself.

All the outside pollen substitute feeders I have seen were made of an empty hive with a tray set inside and blocks between the bottom board and hive body and sometimes under the covers. But there was very little activity around the outside, apparently because the bees were not able to fly inside the feeder. They are always in flight when they pack the pollen baskets. My feeders are made from ordinary apple boxes with the thin slat cover off. I remove one of the three-eighths inch sides and build up the two heavy ends with a triangular board, about three inches wide at the front, narrowing down to nothing at the rear of the box. This

is covered with a thin board and finally with roofing paper, making a sloping roof and resembling the old-fashioned dairy shed. A four-inch board is nailed across the front top to keep out rain. A tray sets inside about eight inches wide and three inches deep, permitting it to set well back in the shed. This open-front feeder permits easy access to the flour.

Up until this year, I set my trays level in the shed, but after the bees had worked the flour for about a day, there was a layer of coarse grainy flour on top which the bees had to dig through to get to the fine flour which they could carry. This caused loss of time. So I remodeled my trays this season, making them about 1½ inches shorter than the inside of the shed, so they can be set at an angle. I fill the tray to within two or three inches of the lower end. When the bees work the flour, the coarse grains roll or are rolled by the bees down to the empty end of the tray. After the finer part of the flour is used, the bees will go to work on the coarse part, but it takes more time for them to pick up a load. I sift my flour through a 16-mesh screen.

Pollen substitutes or supplements have a definite place in modern beekeeping in the future, especially in sections where the honey flow comes early, before the bees are built up to good strength if left alone. Even in sections where the flow comes later, it is desirable to feed substitute when there is a dearth of natural pollen. Supplement may be fed during mid-summer when there is usually a dearth of pollen, to keep up brood rearing for the fall flow. I expect to carry on some experiments along this line this season.

Whether it would be advisable to feed a supplement late in the fall to build up a pollen reserve, I do not know. This might stimulate brood rearing to such an extent that there would be too heavy a drain on winter stores. Even with a heavier pollen reserve, whether natural or substitute, there would not be the early stimulus unless further substitutes were fed in the spring.

In conclusion, a word of warning—DO NOT set your feeders where stock can get to them, cows are as crazy for soy flour as bees and they will break through anything but a ten-strand barbed wire fence to get to it.

Discussion Summary—

The replies in the discussion about the use of pollen supplements or substitutes that could not be used in the last issue, are summarized here, concluding the discussion.

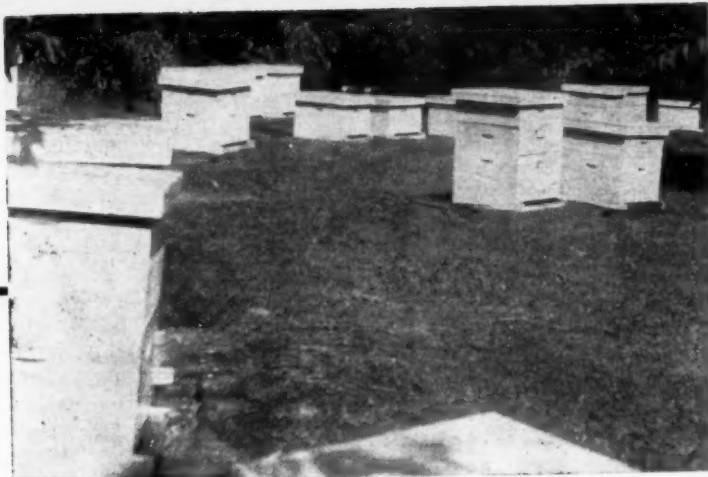
Louis F. Cox, Lexington, Missouri, writes: In cake form pollen substitute is a quick and handy way to give sulfa to a colony for the prevention of American foulbrood. My location is good for pollen both fall and early spring, so I feed only a little during March. I give one or two small cakes containing sulfa and feed some dry. Colonies will build up rapidly when fed pollen supplement or substitute along with sulfa-treated syrup. This syrup builds a weak colony up faster than syrup without sulfa. It helps put colonies in shape for splitting and requeening. As my bees are near town, feeding helps keep them from bothering

people in the early spring search for pollen.

Elmer E. Vikla, Lonsdale, Minn., says: I have used pollen substitute for three years with good results. We start feeding soy flour and yeast outside about March 20th, depending on the weather. If it is rainy or cold, I make soy flour cakes mixed with yeast and honey, and place them inside on top of the frames. This substitute starts brood rearing fifteen days earlier. The first source of pollen, the maple, starts blossoming about April 3rd. By strengthening the colonies with substitute, I can requeen them before the clover and basswood flow, starting about June 20th.

Wayne Keller of Oshkosh, Nebr., writes: My experience with pollen substitutes is limited. I have used: 1.—a dough "patty" made of skim milk, soy flour, brewer's yeast and sugar; 2.—a dry mixture of soy flour and yeast. As the dough dried out, I would now advise using a great deal of sugar, so the substitute will remain moist. My bees used a great deal; some were saved from starvation by the sugar in the mixture. The purpose of feeding substitute without pollen is not to develop bees for long life, but to increase numbers at a time when breeding is low. These bees are useful despite their diet deficiency when natural pollen begins coming in.

Next Discussion— With this month we change our approach to future discussions. The next topic, as given last month, will be "WOULD YOU ADVISE A YOUNG MAN TO TAKE UP BEEKEEPING AS A VOCATION?" Following that "SHOULD WE PRODUCE MORE COMB HONEY TO IMPROVE OUR MARKETS?" When there are enough replies to make a satisfactory presentation, they will be published. If there are more replies than can well be used in one month, the rest will appear to finish the discussion the following month. Then the next discussion will begin in the next succeeding issue. And so on. Do your best and let's go.



The apiary at Atlantic, Iowa, at the Honey Plant Test Gardens, where the first work in selection for resistant stock was done.

The History of a Breeding Project

Part II—Resistance is Inheritable

by G. H. Cale, Jr.

The first part of this history appeared in February, with the steps that led to the conception of experiment. In this second part we find that resistance is inheritable, another great step forward.

THE first step, the first big question facing the breeding program had been answered. Was there such a characteristic as resistance to American foulbrood? Would degrees of resistance to the disease be manifested by colonies subjected to the disease? The work of that first year of effort proved beyond any doubt that resistance did exist. Seven colonies had completely cleaned up all symptoms of disease by the fall of 1935. The first obstacle had been hurdled but there still remained one more question to solve before it could be known whether or not the present line of investigation could be continued.

Was the factor for resistance inheritable? Could this factor be transmitted to offspring? This was the big question that faced the project in the fall of 1935—a question which had to be answered in the affirmative if the success of the venture was to be assured.

There was obviously only one thing to do. The winter season at Atlantic, Iowa was too long. It would not have been possible to wait until spring, raise daughters of the supposed resistant mothers, and still get

them tested during 1936. Arrangements were made with Dr. F. L. Thomas, State Entomologist of Texas, and his permission was obtained to raise queens in the lower Rio Grande Valley. Dr. Thomas also made available the facilities of the sub-station of the Texas Agricultural Experiment Station at Weslaco, Texas.

That winter of 1935-1936 Mr. Pellett and Dr. Park took four queens down to Texas. They were transported as large nuclei—each with five frames of Modified Dadant comb with brood, bees, and queen. Daughters were reared from these four tested queens, mated under isolated conditions, and brought back to Atlantic in three-frame nuclei the first of May.

A period of anxious waiting now set in—it would not be possible to test these daughters until time had been allowed for their worker progeny to be well represented in the colonies. During this period, the enthusiasm of these two men and their eagerness to know the results must have made the waiting hard to bear.

By the latter part of June, however, the waiting was over and the colonies—which had by now built up to considerable strength—were subjected to testing with disease inserts. These colonies were matched very closely during the course of that spring and fall of 1936. The success of the entire venture now hung in the balance. Was resistance inheritable?

Would these colonies clean up disease? It must have been very satisfying to these men to watch the cleaning up progress of this second generation stock. Nine colonies out of the twenty-seven tested had completely cleaned up all symptoms of disease by the time of the last examination that fall. The second step was completed and the future of the breeding program assured. **THE FACTOR FOR RESISTANCE WAS INHERITABLE. THIS FACTOR COULD BE TRANSMITTED TO OFFSPRING BY RESISTANT PARENTS.**

1937 - 1940

Prior to 1936 only three agencies were cooperating in this breeding program — the AMERICAN BEE JOURNAL, under the sponsorship of Dadant & Sons, represented by Frank C. Pellett, the Entomology Section of the Iowa Agricultural Experiment Station, represented by Dr. O. W. Park, and the Agricultural Extension Service of Iowa, represented by Professor F. B. Paddock. During 1936 these first three were joined by Texas, through the courtesy and efforts of Dr. F. L. Thomas, State Entomologist, and H. P. Parks and A. H. Alex. After 1937, however, there were many more agencies which entered the picture and gave the benefit of their services. Here again the records which are available are somewhat vague. However it is fairly cer-

tain that as early as January, 1935, there had already been some talk of a breeding program of this nature, sponsored to a great extent by Dr. F. L. Thomas.

Contribution No. 693, Division of Entomology, Texas Agricultural Experiment Station, "CAN AMERICAN FOULBROOD BE ERADICATED", by F. L. Thomas—was read before the Texas Entomological Society, January 24, 1935. In this paper Dr. Thomas pointed out that the problem of breeding a bee resistant to American foulbrood was big enough to occupy the thought of all those interested in beekeeping. He proposed a plan as follows: "Utilize the existing tax-supported federal and state beekeeping research agencies for rearing strains of bees that are thought to possess some qualities of resistance to American foulbrood. This would involve the broad cooperation of the U. S. Bee Culture Laboratory at Washington, D. C., its branches at Baton Rouge, Louisiana, at Laramie, Wyoming, and at Davis, California, and in addition the state organizations at Ithaca, N. Y., Madison, Wis., St. Paul, Minn., Ames, Ia., San Antonio, Texas, and possibly others. With these agencies scattered throughout the country, the work of rearing and testing the progeny of queens for susceptibility and resistance to American foulbrood could be undertaken with efficiency and dispatch."

Copies of this paper were sent to the Federal Division of Bee Culture Iowa State College, the University of Wisconsin, the University of Minnesota, and Cornell University; most of whom expressed willingness to cooperate in this project. Surely these early efforts of Dr. Thomas were responsible to some extent in influencing these other agencies to join in this search. The plan as set up in 1937 was a cooperative arrangement between the Agricultural Experiment Stations of Arkansas, Iowa, Texas, Wisconsin, and Wyoming and the Bureau of Entomology and Plant Quarantine of the U. S. Department of Agriculture. The modest breeding plan which had started with only three agencies was now given support by the Agricultural Experiment Stations of five states and the services of the Division of Bee Culture.

Now what about the breeding program itself? What progress was made during those years from 1937 to 1940? Let us examine very briefly

(Please turn to page 251)

American Beekeeping Federation

The Washington Story

Representatives of the American Beekeeping Federation (including Woodrow Miller, Marvin Webster, R. B. Willson, Jeff Weaver, Fain Cesar, R. F. Remer and Roy A. Grout) have been trying since February to get acceptance by the Government in Washington of the four immediate objectives of the Federation. These include price support (assuring 75% of parity or 12 cents, government purchase of surplus honey, and requests for research on insecticides and on new uses for honey in the baking industry.

Secretary of Agriculture Charles F. Brannan has the power through existing legislation to grant price support to honey. Both he and Mr. Ralph Trigg, Administrator Production and Marketing Administration, were interested in our problems and realized that honeybees are important to agriculture through pollination, but they were reluctant to give us a price support program. They reasoned that the Government has the problem of just how many commodities it can afford to support in such a program, and also that they might be unable to dispose of a large quantity of honey should the Government purchase it. Federation representatives maintained that they would not have to buy more honey than could well be used in school lunch and institutional feeding, and that price support and a purchase at the same figure went hand in hand.

After more than a month's hard work on the part of Federation representatives interviewing officials in the Department of Agriculture, most of whom were sympathetic, Secretary Brannan announced that the purchase of honey would have to be made at current market levels instead of the 12 cents requested. The Federation then asked that, if it were necessary to purchase honey at current market levels, on a surplus removal basis, the Government purchase our entire surplus estimated at 24 million pounds, and renewed its request for purchase on a price

support basis at 12 cents per pound. Both requests were denied by the Commodity Credit Corporation Board through its announcement that the U. S. D. A. would purchase up to 12 million pounds of Grade A honey for school lunch and institutional feeding. One of the conditions of the program was, however, that the vendors must certify that they had paid beekeepers not less than 8.5 cents per pound net for buckwheat honey, 9.0 cents per pound net for light amber, 10.0 cents per pound net for extra light amber, and 10.5 cents per pound net for white extracted honey delivered to the vendor's plants. These are current market prices, according to the U. S. D. A. Thus was announced a honey purchase program which will remove a good part of our surplus in a manner that will not result in depressing current honey markets.

The two requests for research were considered favorably by the Research and Marketing Administration, but no definite commitments are possible until appropriations are made for the fiscal year beginning July 1, 1949. For research on honey in the baking industry, we were asked to match funds in a project amounting to \$10,000 each year for two years. The beekeeping industry is not financially able to do this and proposed to raise \$2,500 a year for two years, requesting that the Administration add \$7,500 annually to this amount. Final approval of this is pending.

We were asked by officials in the U. S. D. A. to add another objective to our program: to make pollination services of honeybees pay more of the cost of beekeeping. Investigation shows that the Soil Conservation Act does not provide legally for payments to beekeepers for pollination services of their bees. Many officials urged us to introduce legislation into the 81st Congress to amend this Act to provide payments to beekeepers for pollination services, and assure them a share in any moneys paid for encouraging legume seed production.

(Please turn to page 257)

The Present Relation of Insecticides to Beekeeping

PART II

In April, Dr. Eckert tells of the present problem imposed by the increased use of insecticides, and the reduced losses from some of the newer chemicals. In concluding the discussion here, he gives the factors affecting toxicity, herbicides, and control measures.

by J. E. Eckert

Factors affecting the toxicity of bees:

Most of the newer chemicals mentioned act as stomach poisons and as contact insecticides, so kill the field bees by contact action. This prevents them from carrying poisoned pollen back to their hives. Parathion also has considerable fumigant action and may kill bees exposed to its fumes. Fortunately, like the other phosphate insecticides, Parathion decomposes rather quickly and so has little or no toxic effect on bees a few days after it is applied.

Another factor in favor of the newer chemicals is that they are effective against certain insects even when used in extremely small quantities. Greater efficiency in application or in confining the chemicals to the fields and to the plants treated will reduce further the amount of toxic material needed to control most of the orchard and field crop insects. When only 1½ pounds or less per acre of DDT, DDD, Toxaphene or Chlordane are needed to control various field crop insects and when a portion of this drifts off the field during the process of application, the probability of injuring bees is decidedly less than the use of several pounds of arsenic per acre.

The herbicide, 2, 4-D: This chemical is used in such small quantities that it has little or no toxic action on bees. Plants injured by its chemical action soon become unattractive to bees and are lost as a source of pollen or nectar. Its use as an herbicide will reduce the available pasture of many important nectar and pollen producing plants and thus will change the value of many beekeeping locations due to the destruction of dandelions, mustards, thistles, and other broad-leaved weeds. But its use has brought to

the attention of many county, state and federal authorities, as well as to thousands of farmers themselves, the definite need to regulate the use of certain agricultural chemicals for the general benefit of agriculture as a whole. 2, 4-D will kill or injure legumes, peas, beans, cotton, tomatoes, watermelons, squash, cantaloupes and other cucurbits; also willows, fruit trees and many ornamentals. It was applied at first as a dust, spray and in oil rather promiscuously before its potency to economic crops was known. Thousands of acres of cultivated crops were either damaged or destroyed by the drift from adjacent areas. Congressional inquiries, resolutions, and many law suits have resulted. Limitations on its manufacture and use have been set up or are being contemplated.

Control Measures: Must this procedure be followed for each and every new chemical that is toxic to plants, as well as to animals? Or should some policy leading to a sensible method of confining all chemicals to the fields treated be adopted for chemicals which may cause injury? What is the best method of effecting an adequate control? Laws do not prevent accidents, robberies or crime. Laws may reduce them somewhat but they mainly make it harder for the culprit when he is caught breaking the law. In the past we have recommended that the use of toxic agricultural chemicals should be regulated for the best interest of all forms of agriculture. We have also recommended that additional research, and education in how to use and apply the chemicals more efficiently, as well as the creation of less toxic substances, should be an essential part of the solution of this poisoning problem. The majority of

the farmers, commercial interests, research workers and educators believe that further research and education are to be preferred to regulatory practices. It is possible that a combination of regulatory practices and of research and educational procedure has to be employed to prevent the misuse of agricultural chemicals. The moral and financial responsibility for losses caused by the misuse of chemicals should be set forth so clearly as to prevent losses by careless or untimely applications of materials.

Questionnaires from all sections of the country have stressed the need for further research in new chemicals, improvement of machinery used in application, more complete research and education in the toxicity of chemicals before they are released, establishing the responsibility for losses caused by their misuse, and the need to "increase the stature of the honeybee in agriculture." Beekeepers alone cannot promote this extensive program but they can help to make the farmer, the chemical salesman, and those who recommend the various spray schedules more conscious of the true relationship of the honeybee and of beekeeping to our agricultural economy.

University of California,
Davis.

So Sweet of the King

The Scottish Beekeeper for September has a full page picture of His Royal Highness, the King of England, visiting the beekeeping stand at the Highland Show in Scotland. Royalty goes in for beekeeping to a considerable extent in the British Isles.



Mr. and Mrs. Todd and Chow, at home. The cover charcoal was from a picture of Mrs. Todd, similar to the one at the right. (Drawing by Florence Tomlinson).



Reva Todd

Our Choice For the Cover

AS Assistant Treasurer of both the Iowa Beekeepers' Association and the Iowa State Horticultural Society, Mrs. Todd is familiar to thousands of the beekeepers of this top honey-producing state. In the securing of materials, queens, and package bees, and in meetings and association affairs, she is the friend and confidante of those who make beekeeping in Iowa an increasingly progressive industry. We have seen Mrs. Todd in action many times, at conventions and banquets and in her office. With the former Secretary of the Iowa Horticultural Society, Bob Herrick, and the present Secretary, William H. Collins, Mrs. Todd has been a steady part of a working team, that not only gives to Iowa beekeepers a center for their affairs, but also for the affairs of the entire horticultural interest of a big state. And that's no small task for one very efficient woman.

Mrs. Todd's first position after business college was Secretary to Professor S. A. Beach, Head of the Department of Horticulture at Iowa State College. She says at that time all she knew about HORTICULTURE and APICULTURE was what Webster's dictionary defined and that the following incident

proves just how much she knew about horticulture:

"I kept books for the college greenhouse and the old gardener, Mr. Reardon, always gave me a rose when I went over to check the books. One day I had one on my desk which he had given me. Professor T. J. Maney came in the office, smelled the rose and said, 'What a lovely rose. What is the name of it?' I was very embarrassed because I had not applied myself to the extent of learning the variety. When I confessed my ignorance he said 'Well, I am quite sure it is a Ben Davis.' He never cracked a smile and shortly left. In a few moments Professor Beach came in and also smelled the rose. He asked, 'Do you know the name of it?' Beaming with horticultural knowledge, I said, 'Oh yes, it's a Ben Davis.' Professor Beach looked at me, thought a moment, and in his very serious way, said, 'Has Tom Maney been over this morning?' I admitted that he had, but it took me about a week to find out that Professor Maney had a very keen Irish wit, that Professor Beach had an uncanny sense of observation, and that I had an awful lot to learn."

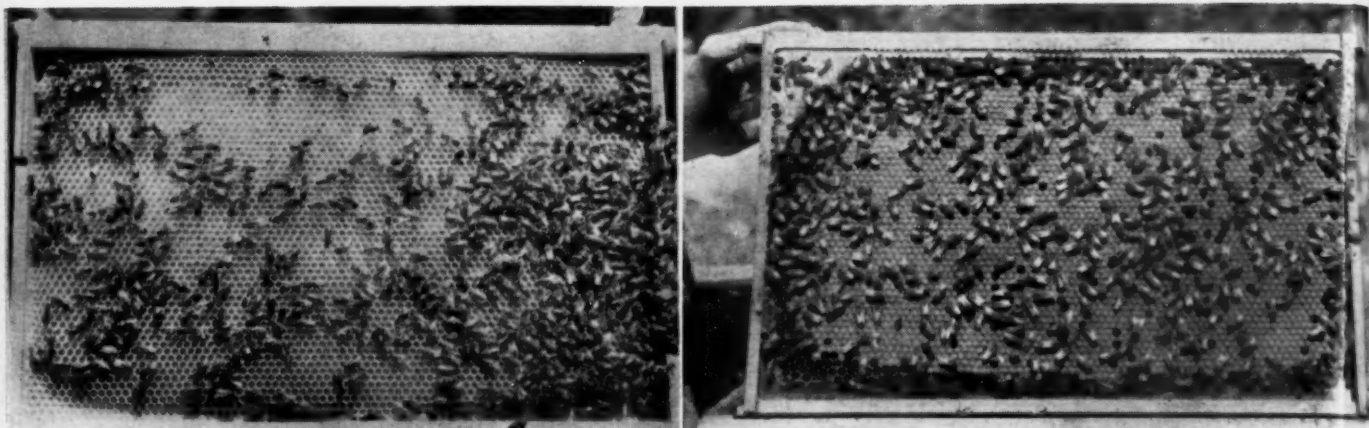
After three and one-half years at Ames, Mrs. Todd went to Des Moines,

where she worked for a short time until a vacancy appeared in the Horticultural Department. She began work for Mr. Herrick, May 1924, and has been there ever since. Her services to those connected with horticultural interests in Iowa, and in distributing disease resistant queens to beekeepers have been great.

Mrs. Todd has been Secretary of the Women's Auxiliary of the Iowa Beekeepers' Association for fourteen years, and is Assistant Secretary-Treasurer of both the Society of Iowa Florists and the Iowa Fruit Growers' Association. She was President of the National Beekeepers' Auxiliary in 1945 and 1946. Besides these, Mrs. Todd is active in the Des Moines Drama Association and several other clubs.

Always a booster for honey, Mrs. Todd keeps honey butter on hand to serve to her guests. She says her husband, Albert J. Todd, attorney, did not care for honey until he tasted this delicacy. Now they are never without it, and she made a hit one year by including small jars of honey butter with her Christmas gifts.

Outside of her career, her husband, their home, and their chow dog, Mrs. Todd is interested in antique china (Please turn to page 248)



(Left) New sheets of foundation soon are fashioned into beautiful white waxen cells for the queen to use. A good queen will produce combs of sealed brood like that at the right. You may be sure, when combs of brood like this are the rule, that the queen is just what she should be.

John Gets a Few Pointers

FOR a half hour or more, John stood in the sunshine by his new bees, now well used to their brightly painted hives, their coming and going making swift music as they darted among the fruit bloom. They paid no attention to him, even alighting on him as he watched them with fascination. He lifted the lid on one hive and pushed the feed bucket. It was still at least half full of the syrup he gave the bees when he finished hiving them, a task that had been so punctuated by a tirade of staccato orders from bee-wise neighbor Miller.

Time now to start enjoying his new pets. Mr. Miller was in the next yard bending earnestly over his own hives. John noted the old Bee Master's swift, sure movements, with an interest that soon drew him to the old man's side.

"John, you know I'm always renewing my enthusiasms. Did you ever see a better queen than that?" asked his old friend, showing, with a grin of approval, a finely and evenly filled comb of sealed brood to the young man.

John tried to see in a glance every bee on the comb, but if there was a queen among them, she was not observable. "I don't see her," he exclaimed, "Guess my eyes are not yet queen conscious."

"I did not say she was there. I don't see her either but look at that brood! It's solid, few cells not filled. All of an age. Takes a fine queen to do that and most every comb of brood in this hive is the same. I'll bet she's a grand lady, with a large,

evenly rounded abdomen, big thorax, going about her business as slowly and methodically as though I were not here. Let's see." He expertly returned the comb he was holding and quietly removed the next one. "Not here either, but we're getting close. There are more eggs in this comb. See, where the bees have come out in the center, solid brood all around the edges but the center with eggs and young larvae, well filled, all over again. Let's try the next one. It's my guess she will be on it."

Sure enough, right in the middle of the next comb was the queen, with her abdomen in a cell, busy laying an egg. As she pulled out her abdomen she seemed to glance around but paid no attention either to Mr. Miller or John who were both gazing in admiration at her perfect body. To think that hundreds of thousands of bees were still to be cradled in her loins; that uncounted and still unformed eggs would move in steady and intense streams from her ovipositor to the combs of the hive; not only during this year but perhaps still another and even another!

John gave an exclamation, "How can it be! It's almost a miracle in nature!"

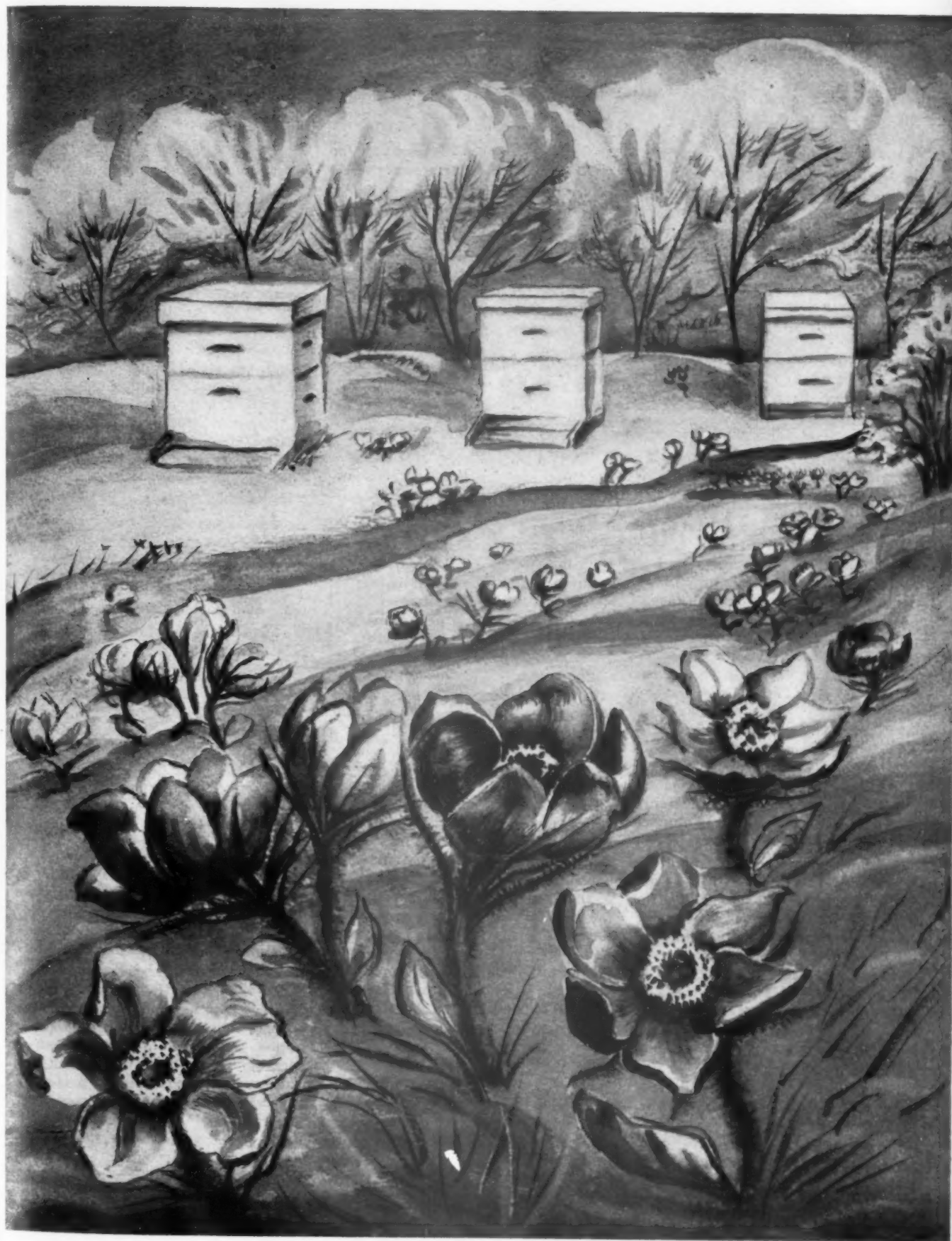
"Yes," echoed Mr. Miller, "Almost a miracle. But queens are not all alike. Those new ones in your hives are your success or your failure. We'll have to watch them. We'll have to get a few more and put them in nuclei reservoirs so if you need them, you will have nice, test-

ed queens to put right into any of your colonies which may not have a queen that is doing well. Many beekeepers fail on this point. Remember, no colony is any better than its queen. The beekeeper's main job is to see that the colony has what it needs. The real responsibility for success lies with the queen."

John, leaning on the fence between the two yards, was now gazing across at his own hives, wondering if he would see there rivals of the queen that Mr. Miller had just shown him. The old Bee Master closed the hive he was working with and opened the next in the row. Then he turned to John, "Come here and see what I mean. See this brood. My main job now is checking on these queens. In fruit bloom I can easily introduce new ones if need be. Here is spotty irregular brood, sign of a queen with poor laying habits; or perhaps a queen that is failing. Let's find her. Here, take this comb and look. Don't see everything; just think queen."

Each with a comb, they hunted out the doubtful mother. With a jump of satisfaction, John exclaimed, "Here she is. Why, she's a runt and look at her run! Her wings look worn."

Mr. Miller smiled, "That's it, now you've had your first lesson in one of the most important things we beekeepers have to do. We'll put a new queen in that hive at the first chance. Well, that's the last colony and I'm going in to supper. See you later John and thanks for helping me."



American Honey Institute

Underneath the hard crust of this materialistic America lie the tender, pulsating ideals upon which this country was founded — upon which this country has thrived.

It isn't often that these ideals are brought to the surface for re-examination. When by chance a word, a deed, a letter brings them to the fore, Americans pause to pay homage to the men whose courage, fortitude and strength have made America the great nation it is today.

Only sheer blindness could be hindering those who insist that those great men are the men of the past. Great Americans are just as plentiful today as they were during the bloody days of 1776. One has only to look around to find men who have bettered themselves through hard work, initiative, resourcefulness, yet have adhered to the gripping principle of the freedom and dignity of man.

Thrilling it is, indeed, to discover a man who lives those ideals that many Americans know in their hearts but find difficult to put into practice.

Such a man has recently become a member of the American Honey Institute. We know that he is not the only great American listed among our membership. But he is such an outstanding example of "Americanism" that we want you to meet him.

You can know him best through this letter he sent to us that accompanied his one dollar membership dues:

"Dear Mrs. Grace:

"Enclosed find one dollar bill as my membership fee for 1949. I am very sorry that it is impossible for me to raise my membership fee above one dollar for this year. When the U. S. Government brought me back to the U. S. A. in 1946 I stepped off the boat in New York on the 21st of October of that year with my 3 minor children without a penny. I tell you it was a tough proposition.

"So you see, I had to borrow money for everything. 1947 I had to borrow money to let my wife come over. 1948 I borrowed money to get a start with ten bee hives. Then I have my two oldest children going to high school. There are expenses and no end. It is a hard struggle for me to get out of debts.

"This year I expected to multiply my ten hives to twenty. But as far

Commercial State Bank Building,
Madison 3, Wisconsin

as I can see now there won't be any possibility. So please excuse me that I am sending you only one dollar this year.

"Wishing you the best success I am with best regards,

Sincerely yours,

This is no hard luck story. On the contrary, it is a success story. One of the finest we have ever heard. One of the most inspiring. But one, we know, which is typical of many of our members who have to struggle, yet have found in the struggle a gratifying fulfillment of an American way of life.

No, we do not excuse him for his one dollar membership. Instead, we thank him humbly for it.

Sometimes a single word-picture can help you grasp the essence of an individual's personality better than a complete biography.

How true that is for Mrs. Grace, the director of the American Honey Institute! Not so long ago, while deliberating about the professional advertising program sponsored by the Institute, she thought a minute, and then remarked:

"You know, I think we'll plunge right into the deep and go ahead."

And so the valuable advertising program was continued. Beekeepers who are familiar with the Institute know how typical this is. They know it dares to "plunge into the deep"—to forge ahead. The history of the American Honey Institute for the last ten years shows a continuous record of progress in honey promotion.

The program of professional advertising is the summit thus far reached by the Institute in its efforts to help the beekeeper sell his product. Last year the program was a great success. This year, as our program is widened, we are sure we will meet with even better results.

All who contribute to the American Honey Institute and its advertising fund should be thanked for the success of this program. It is only with their encouragement and backing that the Institute can afford to "plunge into the deep" of bigger honey promotion.

WHIRLIGIG HONEY RHUBARB PIE

1 cup honey
3 to 4 tablespoons flour
2 teaspoons grated orange rind
4 cups rhubarb

Spry Piecrust.

2¼ cups sifted all purpose flour
1 teaspoon salt
¾ cup Spry
5 tablespoons cold water

Mix 1 cup honey and 3 to 4 tablespoons flour with 2 teaspoons grated orange rind. Combine with 4 cups rhubarb, cut in pieces. Make one recipe Spry Piecrust. Roll half of dough ⅛ inch thick and line a 9-inch pie plate. Fill pie shell with rhubarb. Roll remaining dough and cut into ½ inch strips. Twist strips and make a spiral over top of pie, starting at center. Brush spiral with milk and sprinkle lightly with sugar. Bake in hot oven (425°F.) 50-60 minutes.

Spry Piecrust:

Mix 2¼ cups sifted all purpose flour and 1 teaspoon salt. Measure out ¾ cup Spry and divide into two equal parts.

Step 1 for Tenderness: Cut in first half of Spry until as fine as meal.

Step 2 for Flakiness: Cut in remaining Spry until particles are size of large peas.

Add 5 tablespoons cold water, mixing thoroughly into a dough.

Reva Todd

Our Choice for the Cover

(Continued from page 245)

and glass and has a fine collection of unusual teacups and saucers. She has had a number of hobbies, including knitting during the war and dramatic activities.

By her friendly and courteous manner, members of the Iowa Beekeepers' Association and other organizations calling at Des Moines are made to feel a part of the organization. Mrs. Todd takes a personal interest in beekeeping problems and has the type of personality that makes it easy for office callers to feel at ease. Her own accomplishments, however, evidently do not impress her, as she writes: "Those with whom I have worked all these years are to be commended for their patience and endurance."



WHIRLIGIG HONEY RHUBARB PIE

(Photo from Spry)

Ant Syrup

The ant season will soon be here and we may be putting out containers of ant-killing syrup. The syrup that we buy is made by adding some slow poison to plain syrup or honey so that the ants will have time to carry it back to the nest and poison the queen. It may attract bees and may be the cause of some of those colonies becoming mysteriously and suddenly queenless.

Some people are very careless when putting out containers of this poison syrup and it would be very easy for the bees to find. It should be in containers having holes big enough for the ants but small enough to exclude the bees.

If bees take this poison syrup, what would prevent them from taking some of it into the super?

I think this is a serious if not dangerous problem. Why could not a law be passed about putting out this poison in the open? Let us hear what some of the other beekeepers have to say about it.

J. A. Cook, Wisconsin.

Honey Imported Into Eire

Reports show that about 81 tons of honey were imported in Eire during 1948 at an average price of about 20 cents a pound, undoubtedly mostly from the British Isles. The Federation of Irish Beekeepers is endeavoring to get a partial ban on such importations.

Ideal comb honey locations are found easily in a locality where cattle feeding for market is practiced—Mr. Matthes, Missouri.

SUMMER PRICES

(AFTER MAY 15, 1949)

ANY QUANTITY

2-lb. package Italian bees with queen	\$3.00
3-lb. package Italian bees with queen	4.00
Extra Queens (Laying Italians)	.75

For queenless packages subtract the price of the queen.
Package prices are F O. B., Tifton, queens alone are post-paid. Full payment required prior to shipment.



GIRARDEAU APIARIES

PHONE 346

TIFTON, GEORGIA

Member American Bee Breeders' Association

SPEARS'

PACKAGE BEES AND QUEENS

QUALITY BRED ITALIANS

Insure success in '49 with quality bred Italians from Spears' Apiaries. We assure you that the quality of our bees definitely warrants the prices we are now listing them for. Our bees have been bred with several things as our goal; first, the excellent ability to gather nectar when weather permits; second, a bee that is quiet and peaceful to work with; and third, a color which is pleasing to the eye—a color and quietness which will give you a lot of pleasure when working in them and make you the envy of your neighbors.

We solicit and appreciate all orders, whether for a few packages or several hundred. Live delivery is guaranteed, satisfaction assured, and a health certificate accompanies each order.

Quantity	2-lb. Pkg.	3-lb. Pkg.	4-lb. Pkg.	QUEENS
1-24	\$3.80	\$4.80	\$5.90	90 Cents
25-up	3.50	4.50	5.50	

Write for discount on large orders.

SPEARS' APIARIES, Hamburg, Louisiana

BRIGHT YELLOW ITALIAN BEES AND QUEENS

All our bees are bright yellow in color, very gentle to work with, and extremely good honey gatherers. Our queens are bred from carefully selected stock that has proven its qualities, and queen rearing begins the first week of March, a fact which guarantees that all packages of bees are headed by a young queen. We also guarantee live delivery, full weight packages of young bees, a health certificate with each order, shipping on date specified, and satisfaction.

Our shipping date starts first week in April and \$1.00 per package books your order, balance 10 days prior to shipping date.

PRICES AFTER MAY 10TH

PACKAGES WITH QUEEN

2-lbs. \$3.25 each	3-lbs. \$4.25 each	4-lbs. \$5.50 each	Queens 75c each
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ALVIN J. DUCOTE

Hamburg, La.

If you wish to buy or sell, use American Bee Journal ads

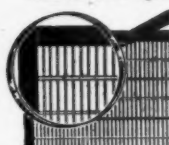
Queens Goochies Honeymooners

April 1 to October 31. Three-Banded Italian Virgin and Italian Drone, will be honeymooning over Texas. After the death of Mr. Drone, Mrs. Queen returns to the hive, to become a 1949, laying, leather colored Queen Bee, to be shipped postpaid air mail to you. \$1.00 each untested. \$1.50 each tested.

GOOCH APIARIES

BOX 341, FARMERSVILLE, TEXAS

CHRYSLER'S Electric Welded All Steel Queen Excluder



The only
worth-while
Queen
Excluder
on the
market!

- Allows maximum bee passage.
- Better ventilation.
- More honey production.
- No wood.
- No sharp edges to injure the bees.
- No burr combs.
- So durably made that it is permanently queen excluding.

SEND FOR CIRCULAR E-2

Now available in the U. S. A. at the Prairie View Honey Co. 12303 12th. St., Detroit, Mich. or, order direct from the manufacturers.

W. A. CHRYSLER & SON
CHATHAM, ONTARIO, CANADA

GLEANINGS IN BEE CULTURE

FEATURE ARTICLES—NEWS ITEMS
MONTHLY TALKS TO BEEKEEPERS

Subscription Rate

1 year, \$2.00; 2 years, \$3.00; 3 years, \$4.00
in United States and Canada.

THE A. I. ROOT CO.
MEDINA, OHIO

IT'S A GOOD IDEA

This is the time to gather up all your old comb and cappings and have them rendered into beeswax before the wax moths consume any part of it. We charge only 2c lb. for rendering when your old comb and cappings weigh 100 lbs. or more (net), 3c on smaller shipments. We pay top price for wax.

We are always buying honey. Send **SAMPLE**, state how much you have and quote your best price. We remit promptly.

Send for our Money Saving Price List on bee supplies.

THE FRED. W. MUTH CO.

229 Walnut Street
CINCINNATI 2, OHIO.

The History of a Breeding Project

(Continued from page 243)

ly the record for this period.* 1935—28% resistance, 1936—44% resistance, 1937—58% resistance, 1938—65% resistance. Progress was surely being made during these years. Of particular interest are these words from a report made by Dr. O. W. Park in 1940: "It is considered noteworthy that tests made on colonies headed by queens reared and for the most part introduced in previous seasons (1938 and 1939) show 100 per cent 'Negative plus Recovery' in all of the lines represented except one." From 28% resistance in 1935 to 100% resistance in 1940! Surely these were years of efforts that were well spent. We admire the courage and fortitude of those first men who were willing to take an unknown problem and stick to it, to prove beyond any shadow of doubt that resistance was not only possible but practical.

The year 1940 saw the end of our participation in this cooperative breeding program. It had been decided to discontinue field testing by cooperators. Since our own position had been relegated to that of a field cooperator in 1937, this decision automatically terminated our participation. We feel that our own part in this project was not small—particularly during the early years when some impetus was necessary to get the project started. The words of Prof. F. B. Paddock might end this particular phase of the story. In his 1940 Final Report of Cooperator Tests, Prof. Paddock said: "It is understood that such field testing is to be discontinued in Iowa. It would seem that the cooperators who have been involved in this work have made a contribution to the development of a 'resistant' strain of bees. These operators have always shown an enthusiasm for the work; in some instances have made some sacrifice, but have been happy to make any contribution possible in this important effort."

* From American Bee Journal for December, 1939. Results of Iowa's 1937-1938 Honeybee Disease Resistance Program, by O. W. Park, F. C. Pellett, and F. B. Paddock.

Oh My!

Bees are said to see yellow, red, and green as a single color. But when they spot us we see just red.

Arejas Vitkauskas,
New Jersey.

May, 1949



Queens

SUNKIST
Italian

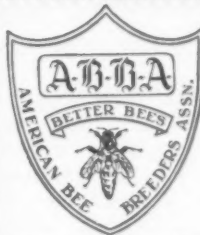
Packages

PRICES UNTIL MAY 20:
Guaranteed live delivery—young laying queens—satisfaction.

	2-lb.	3-lb.	4-lb.	5-lb.	Queens
1-25	\$3.75	\$4.75	\$5.75	\$6.75	\$1.15
25-50	3.50	4.50	5.50	6.50	1.10
50-up	3.25	4.25	5.25	6.25	1.00

PRICES AFTER MAY 20:—2-lb., \$3.00; 3-lb., \$4.00; 4-lb., \$5.00. QUEENS 65c.

SUNKIST BEE COMPANY **Convent, La.**



BETTER BRED QUEENS
THREE-BANDED ITALIANS

NOW IS THE TIME. We have plenty of bees ready—waiting for you. We have lowered our prices to help all we can for you to produce honey cheap. Order direct from this ad at the following prices.

PRICES

2-lb. package with queen	\$3.25
3-lb. package with queen	4.00
Queens	.85

AFTER MAY 10TH

2-lb. package with queen	\$2.75
3-lb. package with queen	3.50
Queens	.75

Any Quantity

CALVERT APIARIES **Calvert, Alabama**

ITALIAN BEES AND QUEENS


BEGINNING MAY 5TH WE HAVE OPEN DATES AT A PRICE YOU CAN AFFORD TO PAY

	1-9	10-up
2-lb. packages	\$3.20	\$3.00
3-lb. packages	4.20	4.00
Queens, each	.75	

Write for prices on packages or queens above 50. We guarantee QUALITY, full weight, prompt and live delivery, and a health certificate with each order.

LET US MAKE YOU ONE OF OUR SATISFIED CUSTOMERS


MITCHELL'S APIARIES **Box 391, Bunkie, La.**



FIRST AD IN 6 YEARS

Have Been Booked In Advance for All the Queens We Raised

We are expanding operations in order to supply the growing demand for our queens. We have the very latest in Resistant Queens. Bred in Isolated Yards.



	May 1	May 20
1-24	\$1.55	\$1.40
25-99	1.45	1.30
100-up	1.30	1.15

JOHN G. MILLER, 723 6th St., Corpus Christi, Texas

Choose Your Labels Wisely—American Bee Journal

All Around the Bee Yard

Well, here we go again on prices and markets. Since last month through the efforts of the Federation the Government has announced the purchase of 12,000,000 pounds of honey for school lunch and institutional use, under bids which must guarantee to the beekeeper current market prices under specified grades. So, about half of our estimated current surplus is now turned into a very desirable channel. The disposal of the balance is up to the industry.

Introducing children and those on special diets to the delectable newness of honey is a very big step in the right direction, provided—and here is the rub—they know they are eating honey when they get it, not a cake or a pie or some other sweet delicacy in which the identity of the honey is completely lost. So far the use of honey in the school lunch has leaned strongly away from raw uses and concentrated on cooking with honey.

In my family we consume two or more sixty pound cans of honey a year and the most of it is eaten as is. Multiply that by the estimated number of beekeepers in the country and beekeepers alone could consume a third to a half of all the honey produced. Yet more often than not the beekeeper's table has no honey on it. Instead it has the ever present sugar bowl. (Page W. F. Matthes, Pleasant Hill, Missouri. That's one of his pet gripes. Poor Mrs. Matthes can have no sugar in the house. Or does she have some in the small corner of her cupboard?)

Looking into this home consumption, in our case, it's about an even split between raw uses and cooking. But the kids! Bless their taste buds, they like **honey!** Surprisingly, one favorite is honey and peanut butter, fifty-fifty. That has stayed through the years, while other trials and errors in use have come and gone. Honey in tea is a natural; honey with cottage cheese is too. Honey rolled in lettuce leaves, yum!

G. H. Cale

yum! And, of course, on pancakes, biscuits, waffles, toast, cereals, salads, fruit, ice cream.

Point is, the big value in school lunch is that the kids learn to love honey for its own sake. They will not do that if the honey disappears in some form of cooked food. The home economics girls might but not kids who should be honey lovers. Let's ask our school moms who have to do with school lunch to give honey to them straight.

Just got back from a meeting of the Western Missouri Association at Kansas City. Rain, rain and more rain; not that it was unwelcome but who wants to go to a bee meeting in bum weather? So about half the usual attendance came. Just as lively as ever though and excited about their Secretary-Treasurer's picture on our front cover last month.

They wanted to know about the new Federation program for the industry. Price support and school lunch purchase have been given first place in the program, but most of those at the meeting were confused over it. Truth is most of the producers there had sold their honey by their own efforts at good prices. Only a few big-time commercial men still are in distress.

The main interest in the Federation program among this group is in the plans to underwrite pollination. Everyone is interested in that. If the government wants beekeepers on clover fields all they need to do to get them there is to provide a good pollination payment that will assure the beekeeper he can do the job at a reasonable profit.

One producer in that area brings me a new slant on the use of honey for infant feeding. Six doctors take

all his **amber** honey, no matter what the color, and with no attempt to standardize it. They want a high mineral content and they get it in amber honey. They want a natural, well-ripened, heavy-bodied honey. All six start the new babies off when bottle time comes with honey in the formula. One says "Half the sickness in babies would disappear if all doctors used honey." Something to think about.

This year the value of "millions of honey at our house" (Doolittle) is quite evident. Most of a rather heavy winter loss will be from starvation, and much of it with honey still in the hives. Bees were too cold to move to distant stores. Where the bees were clustered right on combs heavy with honey and stored pollen, they came through winter with a bounce. Had heavy winter brood and more bees in spring than in fall. But the total consumption was more than usual and much feeding will have to be done. Remember, bees will starve overnight in the two or three weeks before the flow unless the beekeeper is on his job. It takes a lot of honey then to keep the colonies booming and much field work is never done in flow time because the brood was restricted too much in the build-up because of scant food. Pay the price if you have prospects for a crop. The cost will come back with profit.

"Bees' Ways"

"Bees' Ways" is the title of a 240-page clothbound book just brought out by Houghton-Mifflin Co., of Boston. The price is \$2.75. George De Clyver Curtis, the author, makes no pretense of having written a book for the commercial beekeeper or for text book use. His is a book designed for the layman or beginner, to give an interesting insight into the bee and its ways, which it does. Written in an interesting manner, it has a California flavor, since its author, a former professor, has practiced all his beekeeping in southern California. No doubt it will induce many of its readers to take up beekeeping.



QUALITY BEES: QUEENS

ITALIAN or CAUCASIAN

EXPERIENCE COUNTS—We have been in the bee business long enough to know what it takes to rear a Good Queen, put up a Good Package, get them to you Promptly, and in Good Shape.

PRICES TO MAY 20TH

PACKAGES WITH QUEENS

Lots of	Queens	2-lb.	3-lb.	4-lb.	5-lb.
1-24	\$1.30	\$4.00	\$5.10	\$6.20	\$7.30
25-99	1.20	3.75	4.80	5.85	6.90
100-up	1.10	3.50	4.50	5.50	6.50

PRICES AFTER MAY 20TH

1-24	\$.85	\$3.25	\$4.25	\$5.25	\$6.25
25-99	.75	3.00	3.95	4.90	5.85
100-up	.65	2.75	3.65	4.55	5.45

Queen Postpaid—Airmailed and/or Clipped at No Extra Cost. Tested Queen 75 each extra. For Queenless Package deduct price of queen. Packages F. O. B. shipping point.

The Stover Apiaries : : Mayhew, Miss.

Tanquary's ITALIAN BEES AND QUEENS

ORDERS NEVER TOO LARGE OR TOO SMALL

Order where you know you will get the best in bees and queens, quality, good weight packages, good young queens, service, plus 31 years' experience. Our aim is to please. Satisfaction guaranteed when you order from Tanquarys.

ORDER NOW

Quantity	Queens	2-lb. Pkgs.	3-lb. Pkgs.	4-lb. Pkgs.	5-lb. Pkgs.
1 to 24	\$1.25	\$4.00	\$5.10	\$6.20	\$7.25
25 to 99	1.15	3.75	4.80	5.80	6.85
100-up	1.00	3.50	4.50	5.50	6.50
Tested	2.00 each.				

Breeder Queens shipped with 2-lb. Bees, Express Collect \$8.00 each.

Price of queenless packages deduct price of queen.

Queens Postpaid—Packages Bees F. O. B.

Health Certificate with each shipment.

TANQUARY HONEY FARMS, Inc.

LENA, SOUTH CAROLINA

WESTERN UNION, LENA, S. C.

TELEPHONE: ESTILL, S. C. 109

Previews of Coming Events



Seattle and harbor, Elliott Bay in foreground. Mount Baker, rear left; Lake Washington, upper right. (Photo by Chas. Laidlaw, Benton, Washington. Courtesy of Seattle Chamber of Commerce).

Bee Pasturage and Pollination Conference, University of Washington, Seattle, July 12-13-14

The Honey and Pollen Plants Committee of the American Beekeeping Federation will hold its annual meeting on the beautiful University of Washington campus as guests of the University, July 12, 13 and 14. The meeting will include all branches of the Agricultural Extension Services. There will be a modest registration fee to cover necessary expenses. A limited amount of inexpensive campus housing will be available, as well as the headquarters hotel and other hotels.

Lancaster County, Pennsylvania, Denver, May 12

The Lancaster County Honey Producers Association spring meeting will be held May 12, 1949 at 6:30 P. M. at the apiary of Henry L. Shimp, R. F. D., No. 1, Denver, Pennsylvania. Wm. W. Clarke, Pennsylvania State Bee Specialist will be in charge.

D. L. Burkholder, Sec'y-Treas.

North Jersey, Bergen County, Woodcliff Lake, N. J., May 8

North Jersey Beekeepers' Association will begin its season of five outdoor meetings on Sunday, May 8th. The meeting will be held at the David H. Tice, Jr. farms in Woodcliff Lake,

Plans are under way to make your visit to the Northwest a happy one. Beekeepers and the state colleges and universities of Oregon, Washington, Montana, Idaho, and Utah have joined in sponsoring this most profitable and interesting conference.

Under the direction of the Committee Chairman, Dr. S. W. Edgecombe, the program is being prepared by Dr. H. A. Scullen, Apiculturist, Oregon State College, and Mr. Herman F. Menke, Apiculturist, State College of Washington. For information address Dr. A. M. Walrath, local arrangements chairman, 509 Olive Street, Seattle 1, Washington.

while the apple trees are in full bloom. There will be plenty of bees on hand for inspection and the Executive Board has promised prominent speakers on both pollination and spray poisonings.

There will be ample room in the barn in the event of rain. So don't miss this first outdoor meeting which should prove most interesting—the time 2:30 P. M.

Rose Leswing
Corresponding Sec'y.

Election of Officers—Michiana

The following officers of the Michiana Beekeepers Association, South Bend, Indiana, were elected on March 20, 1949: President, Alton L. Lung,

Michawaka, Indiana; Vice-President, M. L. Desich, Granger Indiana; Secretary-Treasurer, Lester E. Bendt, South Bend, Indiana.

Westchester County (N. Y.) Larchmont, May 15

The Westchester County Beekeepers' Association will hold its first outdoor meeting, weather permitting, at 2:30 P. M. on Sunday, May 15, 1949, at the home of Mr. and Mrs. Carlton Slater, 17 Bronson Avenue, Larchmont, N. Y.

Following a short business meeting, there will be a practical demonstration of hive inspection given by the Mutual Assistance Committee. Refreshments will be served and visitors are always welcome.

B. F. Miller, Publicity.

Cuyahoga County, Ohio, Cleveland, May 22

Officers elected at the winter meeting of the Cuyahoga County Beekeepers' Association were: President, E. E. King; Vice-President Vic Hanus; Secretary, Robert D. McDonald; Treasurer, Jason Schneider.

The next meeting will be held on May 22 at 1:30 P. M. at the home of Dr. King, 9135 Broadway, Cleveland. This will be a field meet. Hives will be opened and inspected and a three-pound package of bees and queen will be introduced into a new hive, this hive being raffled. The various methods of swarm control will be explained by competent authorities. There will be out-of-town guest speakers who will talk on various subjects pertaining to bees. It should be a big day, everyone is welcome.

Dr. E. E. King, Pres.

Indiana Officers

Officers of the Indiana State Beekeepers Association for this year are: President, W. Clyde Hudson, Evansville; First Vice-President, Gerald L. Hodson, Amboy; Second Vice-President, D. G. Rutherford, Lafayette; Third Vice-President, Forrest R. Nicholas, Auburn; Sec'y-Treasurer, Walter R. Bielfield, Terre Haute.

The Indiana State Fair will be held September 1st to 9th. Beekeepers (Please turn to page 264)



The above picture is a portion of one of four sheds containing our queen cell raising colonies, a result of research. It protects the delicate operation of queen cell raising from the adversities of weather. It is only part of our queen cell raising method and equipment and since it has been in use we have never failed to have the necessary amount of high quality queen cells. It also tends to greater efficiency.

(Write for full story)

Most Modern Bee Breeding Establishment On Earth

THAT IS THE SECRET of how we have brought the utmost in quality and service to our customers through the years with very little increase in cost.

THAT IS WHY our regular customers include both large and small beekeepers.

One of the World's Leading Strains of Light Colored Italians.

Lot	Queen	2-lb.	3-lb.	4-lb.	5-lb.
1- 5	\$1.55	\$4.75	\$6.00	\$7.25	\$8.50
5- 15	1.50	4.65	5.90	7.15	8.40
15- 25	1.40	4.50	5.75	7.00	8.25
25-100	1.35	4.40	5.65	6.90	8.15
100-up	1.20	4.25	5.50	6.75	8.00

Selected Tested Queens—Before June 1—\$10.00. After June 1—\$5.00

Above package prices include queen. Queenless packages, subtract \$1.35 from price of package with queen. All queens are air mail, postpaid, but package bees are F. O. B. shipping point and are shipped Express collect. It is preferable to ship package bees by Railway Express, however they can be mailed and in that event customers should include postage.

TERMS—Small orders, cash in full. Large orders, 20 per cent deposit, balance to be received two weeks before shipping date. U. S. funds. A 10 per cent discount is allowed on package bees if shipment is to be made after May 20th. A 20 per cent discount is allowed on queens if shipment is to be made after May 20th., and a 25 per cent discount is allowed on queens to be shipped after June 1st.

The Daniels Apiaries : : Picayune, Miss.

The Postscript

H. E. Euritt, of Indianola, Iowa, sends samples of honey from two hives standing side by side. While one colony was storing light honey from clover the other was storing very dark honey from some unfamiliar source. In seasons of heavy honeyflow from any common source all the hives in an apiary are very likely to store honey of similar quality. In poor seasons like 1948 in Iowa, it is not uncommon for some colonies to find something which yields honey of very different color and flavor from that stored by others.

Mrs. Fred Sturgeon of Cherokee, Kansas, tells of an interesting trip to Mexico and mentions the primitive beehives painted in bright colors that she saw there. She was impressed with the great variety of flowers in bloom in the month of April.

A visit to Mexico is a never to be forgotten experience since there are so many things to see and to do. Now that good roads are open to the more important places it is easy for the tourist to make the journey with his own auto.

Hans Geng, the young German mentioned as wishing to correspond with beekeepers in America, writes: "The fact that so many beemen of the USA are ready to write to a German and forget hostilities and war, makes me very happy. The result I never expected. I was covered up with letters from all parts of America. I was sorry it was impossible for me to write to all these kind beekeepers. I could not yet afford the postage to write to all, and it would not be possible to get time enough for it. Beekeepers in USA are nice helpful fellows."

Few of the world's most important people are ever heard of outside the home community. As I see it, the really important folks are the ones who do the work that keeps the wheels turning. In every community there is someone who has rendered unusual service yet who may not even be conscious of the fact. If the roving reporters would look behind the scenes for such people instead of seeking to interview

Frank C. Pellett

the ones already famous they might turn up some surprising facts.



It will probably be a big surprise to Carrie Young, if she happens to read this page, to learn that she has probably made more bee veils than anyone who ever lived. In the autumn, of 1903 when she was a young girl, Carrie Young started making veils for Dadant & Sons. She is still making them in her 46th year and turns out a total of sixty or more in a day. It would be interesting to know how many thousand beekeepers have protected themselves from stings as a result of her work yet never heard of Carrie Young.

For long this tireless veil maker worked alone to meet the limited demand for bee veils. Yet she lived to see the veil department expand until there was a total employment of about 75 women making veils to protect soldiers in the tropics from the bites of poisonous insects. In times of peace the sportsmen have come to appreciate the comfort of such a veil when hunting in mosquito infested regions. Thus for 46 years Miss Young has contributed to the comfort of beemen, soldiers and hunters. Uncounted cases of disease

have been prevented by protection against insect bites and millions of stings have been avoided in the same way. How little we realize how much we owe to those we have never seen.

H. W. Hodgson, of Hoboken, New Jersey, cultivates the multiflora rose for seed. He reports that his bees do work the flowers and that since he has the bees he gets five times the amount of seed formerly harvested. The roses are good sources of pollen but seldom yield much nectar. There is an occasional report from Oregon of a honeyflow from roses. Several years often pass after such a flow before another occurs. So seldom do the bees get worth-while crops from any of the roses that they are very rarely important.

F. H. Harvey, Battle Creek, Michigan, raises the question as to whether there is any relation between fragrance of flowers and their nectar secretion. Some of the most fragrant flowers yield no nectar. This is true of some roses. My sense of smell is very dull and my nose is not dependable for detecting faint odors and I am unable to detect any fragrance in some cases where nectar is flowing rather freely. With such poor facilities for detecting odors I have given less attention to fragrance in honey plants than the subject deserves. Any comments on this subject will be welcome.

From California comes a report of extensive areas devoted to the growing of garden flowers for seed. Special mention is made of delphinium, pansy, cineraria and primula. In other neighborhoods large fields are devoted to zinnias and other garden favorites. I would like very much to hear from beekeepers living near such seed farms as to the extent of the honey harvest from such fields.

When we observe the eagerness with which the bees visit such flowers in our gardens we cannot but wonder whether a worthwhile harvest comes where they are grown in large fields.

Atlantic, Iowa.

American Beekeeping Federation

(Continued from page 243)

We are now seeking the guidance of pollination experts, and the full support of other farm groups. Inasmuch as Agricultural officials urge that pollination pay more of the cost of beekeeping, and that it is an issue separate from price support of honey, the U. S. D. A. seems committed to support a reasonable approach to the problem of payments for pollination services.

On March 31, final production goals for 1949 crops and livestock were announced by the Department of Agriculture. These goals call for a decrease in intertilled and close-growing crops and an increase in legume and grasses. For winter cover crop seeds the 1949 goal is 147% of the 1948 actual crop; for hay and legume seeds the 1949 goal is 159% of the 1948 crop. The Government plans to encourage production of seed so that they can carry out their program to retire 22 million acres of cash-crop lands to grasses and legumes. In view of this, the need for and importance of pollination by honeybees will be greater than ever.

A hearing is to be called soon concerning the two Bills introduced in the House, both of which ask that honey be supported at 90 per cent of parity. It is the hope of the Federation that this will result in favorable consideration of: the need for price support, and the inclusion of honey along with other farm products in any general price support program; and legislation amending the Soil Conservation Act to provide payments for pollination services of bees.

Our problem in Washington is twofold: we must sell ourselves by convincing officials of the importance of bees to the agricultural economy of the nation, and we must carry more weight in Washington. We are attempting to correct this situation by improving Washington contacts and by seeking the support of related farm groups. You can help by supporting the Federation and by writing to your representatives in Washington and to your State Commissioner of Agriculture telling them how important bees are to our agricultural prosperity and how present conditions are affecting your business.

No matter what Washington does, however, we must still solve our two real problems, organization and marketing, ourselves. Solutions to both are attainable if beekeepers and others within the industry cooperate.

GARON'S

Package Bees & Queens



GARON'S Better Quality Regular 3-Banded Italian Bees with Selected Queens

PRICES MAY 20TH—WITH QUEEN

	2-lb.	3-lb.	4-lb.	Queens
1 to 24, packages	\$4.00	\$5.00	\$6.00	\$1.00
25 to 99, packages	3.75	4.75	5.75	.95
100-up, packages	3.50	4.50	5.50	.90

PRICES AFTER MAY 20TH

1 to 24, packages	\$3.50	\$4.50	\$5.50	\$.95
25 to 99, packages	3.25	4.25	5.25	.90
100-up, packages	3.00	4.00	5.00	.85

GARON'S 3-Way All-Italian "Hybrid" Daughters of Disease Resistant Queens

Six generations of Controlled Instrumental Mating and Careful research work has gone into the production of these Northern-Bred All-Italian "Hybrids."

PRICES TO MAY 20TH

1-24	\$1.55
25-99	1.45
100-up	1.30

PRICES AFTER MAY 20TH

1-24	\$1.40
25-99	1.30
100-up	1.15

For packages with All-Italian "Hybrids" deduct the price of Regular 3-Banded Queens and add the price of "Hybrids."

Garon Bee Co.

Donaldsonville, La.

TELEPHONE 8614

QUEENS!

QUEENS!

ITALIANS!

AFTER MAY 15TH—75 CENTS EACH

\$7.00 Per Dozen

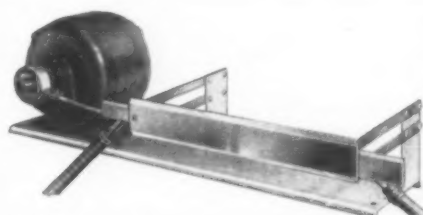
Every queen sent Air Mail.

Satisfaction guaranteed.

WALTER D. LEVERETTE APIARIES

P. O. Box 364

Ft. Pierce, Florida



The Brand Power Uncapping Knife

The Brand Power Uncapper has been in use for some seasons, giving excellent satisfaction. It is a steam heated, vibrating knife, moving at 1750 vibrations per minute. It is complete with a motor mounted on the right hand side, unless the mounting is requested to be on the left. Mr. Brand advises that it can be sold on a money-back guarantee if you are not pleased after a reasonable try.

Priced at \$50.00 each, F.O.B., El Paso, Texas, or Grand Rapids, Michigan.

A. G. WOODMAN CO.; Grand Rapids (4), Mich.

Classified Advertisements

BEES AND QUEENS

CARNIOLAN QUEEN BEES, air mailed, \$1.25 each. Ephardt Honey Farms, Batchelor, Louisiana.

REPLACE FAILING QUEENS promptly and get a crop of honey. Prices after May 10—single queen 90c; \$75.00 a hundred. Eugene D. Cutts, Citronelle, Alabama.

CERTIFIED ITALIAN BEES—60 cents a pound net, you supply cages, after May 15. Valdosta Honey Company, Valdosta, Georgia.

FOR SALE—Three pounds Italian bees and queens, \$4.00 in lots of one hundred. Dewey Apiaries, Merritt Island, Florida.

SPECIAL three and half pound package, with clipped loose tested queen and her bees, eliminates supersedure. Four dollars after May 15th. A. V. Dowling, Valdosta, Georgia.

JOE'S ITALIANS—3 pounds with queen \$4.00; 4 pounds with queen \$4.75. Live delivery and health certificate guaranteed. Joe Roy Apiaries, Hessmer, Louisiana.

ITALIAN QUEENS raised for **HONEY PRODUCTION** \$1.00 each. Kirkwood Apiaries, Bristow, Oklahoma.

THREE POUND BOOSTER queenless packages, gentle certified Italians, three dollars. Queen eighty cents extra, delivery after May fifteenth. Valdosta Honey Co., Valdosta, Georgia.

ITALIAN QUEENS 75c each any number. Lange Apiaries, Rt. 2, Box 23-W, Mission, Texas.

BILL ATCHLEY'S BEES and QUEENS are the best to be had. 4-frame nuclei, 2 in a ten frame hive body, \$5.00 each nuclei. Full ten frame colonies, screen covers, \$7.00 each. Queens, Italians or Carniolans, \$1.00 each. Wm. Atchley, 500 E. 9 Street, Upland, California.

CAUCASIAN QUEENS—1-9, \$1.25 each; 10-49, \$1.10 each; 50 and over, \$1.00 each. Gentle, high producing bees. Howard E. Crom, Rt. 1, Box 75, Ripon, California.

SEVERAL THOUSAND PACKAGES for May at prices to meet present honey prices. Write for quotations on your needs. Italians. Member "ABBA." S. J. Head, Crossett, Arkansas.

CAUCASIAN BEES and QUEENS—2-lb. and queen, \$4.50; 3-lb. and queen, \$5.50. Select untested queens—1 to 25, \$1.25; 25 to 50 \$1.20; 50 up, \$1.15. Satisfaction guaranteed. Health certificate with every order. Black River Apiaries, Elliott Curtis, Mgr., Rt. 1, Currie, N. C.

GOLDEN, GOLDEN—Italian bees and queens of finest quality. 2-lb. and queen, \$4.00; 3-lb. with queen, \$5.00; up to 25 packages. Select untested queens, 1 to 25, \$1.25 each; 25 to 50, \$1.20; 50 up, \$1.15. Tested queens \$2.50 each. Larger package orders, write for prices. All bees shipped in new cages. Carolina Bee Farm, W. O. Curtis, Mgr., Graham, N. C.

TOP SECRET! In stock improvement going on in our plant. Prospects good. In the meantime get on our customer list, and get first chance at these new **CAUCASIAN QUEENS**. Queens now, \$1.35 each. Substantial discount on large orders. Mark L. St. John, Ripon, Calif.

CAUCASIAN PKG. BEES and QUEENS. 2-lb. packages \$4.00 3-lb. packages \$5.00. Queens, untested, \$1.00. Lewis and Tillery Bee Co., Rt. No. 1, Box 280, Greenville, Alabama.

BREWER'S LINE-BRED CAUCASIAN QUEENS—Now booking orders for April 1st. Prices, 1-99, \$1.15; 100-up, \$1.00.

Copy for this department must reach us not later than the fifteenth of each month preceding date of issue. If intended for classified department it should be so stated when advertisement is sent.

Rates of advertising in this classified department are thirteen cents per word, including name and address. Minimum ad, ten words.

As a measure of precaution to our readers we require reference of all new advertisers. To save time, please send the name of your bank and other references with your copy.

Advertisers offering used equipment or bees on combs must guarantee them free from disease or certificate of inspection from authorized inspector. The conditions should be stated to insure that buyer is fully informed.

Member of A.B.B.A. Brewer Brothers Apiaries, 3616 Caucasian Circle, Tampa 9, Florida.

GREEN'S PROFIT PRODUCING QUEENS won't fail you. They are backed by 22 years of breeding better queens. Start shipping about March 15th. Price 90c each. D. P. Green, Rt. 2, Deland, Florida.

BRIGHT YELLOW and three band queens. Graydon Bros., Rt. 2, Greenville, Ala.

FOR SALE

FOR SALE OR TRADE FOR HONEY—200 10-frame wood bound queen excluders 25c each. One four-frame Lifetime extractor, either hand or power, \$65.00. Lange Apiaries, Rt. 2, Box 23-W, Mission, Texas.

FOR SALE—Few cartons Dadant crimp-wired foundation, standard size, \$20.00 per carton 25 pounds. Robert E. Denhy, Roseau, Minnesota.

COMPLETE OUTFIT—700 Modified Dadant, 100 10-fr. hives, part with bees, balance drawn comb on Dadant's wired foundation. All with division board feeders. 3,000 supers drawn comb. Extracting equipment, locations and lease on honey house this season, if desired. Sold subject buyer's inspection. Territory includes record Hubam acreage. Merritt Cook, Nemaha, Iowa.

FOR SALE—100 colonies of bees in three story hives. Floyd Uitermarkt, Hubbard, Iowa.

21 TWO-STORY, 10-FRAME COLONIES, supers. Make own inspection. Donald Shrader, Coatsburg, Illinois.

25-LBS. WIRED FOUNDATION, 25 lbs. Airco foundation, 3-lbs. thin foundation, 4 new 10-frame empty hive bodies, 7 3-wire 10-frame queen excluders. 20% less than catalogue price. F. A. Storz, St. Marys Iowa.

90 COLONIES with all equipment for both comb and extracted honey. Edwin Krinke, Bay City, Wisconsin.

LEWIS 10 and 8-frame equipment at less than half price. Also 40 2-story colonies. No disease. H. Reim, Watertown, Wisconsin.

FOR SALE—700 colonies 10-frame, 2-story hives Italian bees, first class condition. Sell any amount wanted. Otto Sanford, Rt. 1, Box 645, Red Bluff, California.

FOR SALE—120 nuclei. Write for complete information. Lewis Lawrence, Luverne, North Dakota.

300 COLONIES, equipment for 500. Langstroth hives and Dadant depth supers. Nice honey house, furnace, running water and lights. One room finished for living. Furnish certificate. H. Birchard, Hornick, Iowa.

FOR SALE—Superior cappings dryer like new used two seasons, \$50.00. Leslie H. Walling, Trenton, North Dakota.

12 10-FRAME 2-BODIES, bees state inspected, fifty assorted supers, combs, extractor, knife, electric wire imbedder, bottoms, tops, smoker, veil and tools for \$275.00 on Harold Clark Farm, Rt. 3, Box 35, Columbus, Wisconsin. Jacob Gross owner, Rt. 2, Box 297, Three Rivers, Mich.

IN FLORIDA 600 1½-story colonies, \$10.00 each. Cypress hives, combs in good condition, all young queens. With six frames of brood or more, and ready for production. No disease or junk. Extra equipment below cost. Box 160, care American Bee Journal.

20 COLONIES. Equipment like new for 50. Complete honey house equipment. All or part. Phone 400 or 54. Paul La Plant, Anoka, Minnesota.

FOR SALE—400 2-story 10-frame colonies. Equipment. Can remain on location. Box 293, Port Huron Michigan.

1,000 COLONIES BEES, large modern warehouse for sale in Wyoming. Good locations. No disease. Box 114, care American Bee Journal.

HONEY and BEESWAX WANTED

WANTED—All grades comb and extracted honey, large or small amounts. Quote price in first letter. Mail sample. King Honey Co., 326 Bales St., Kansas City, Mo.

HONEY AND WAX WANTED. Mail sample. Advise quantity. Bryant & Sawyer, 2425 Hunter St., Los Angeles, Calif.

WANTED—Honey and wax—any quantity. Send samples and prices. Alexander Company, 819 Reynolds Road, Toledo 7, Ohio.

WANTED—Extracted honey, white or light amber, in 60's. State price in first letter. Ed. Heldt, 1004 W. Washington St., Bloomington, Illinois.

HONEY WANTED—All grades and varieties. Highest cash prices paid. Mail samples. State quantity. HAMILTON & COMPANY, 1360 Produce Street, Los Angeles, California.

HONEY FOR SALE

MINNESOTA'S FINEST WHITE, mild clover honey, 325 new sixties. 10 cents F. O. B. Robert E. Denny, Roseau, Minn.

700 SIXTIES delicious clover honey. John Burghardt Apiaries, 1111 N. Franklin, New Ulm, Minnesota.

FOR SALE—Carload sweet clover honey. Samples and price on request. B. J. Knudson, Clifford, North Dakota.

FLORIDA WHITE TUPELO, the world's finest honey—pure orange blossom honey—white clover, and buckwheat honey shipped in barrels, 60-pound tins, gallon cans, or in glass by the case. Pure maple syrup. Alexander Company, 819 Reynolds Road, Toledo Ohio.

NEW CROP OF HONEY shipped daily from producer in Florida. Pure orange blossom, 5-lb. pail \$2.25. Pure Florida cut comb honey. 5-lb. pail \$2.75. No C.O.D. orders; all shipments prepaid. E. R. Raley, Box 1610, Daytona Beach, Florida.

CLOVER HONEY, No. 1, white extracted, 16c per lb. in 60's. Lose Brothers, 206 E. Jefferson, Louisville, Kentucky.

WANTED

WANTED—Someone to place 200 colonies of bees on my 125 acres of alfalfa run for registered seed production. Will pay rent \$2.00 an acre. Should be good for honey production till late fall as none of fields are cut for hay. C. R. Youngquist, Terry, Montana.

SUPPLIES

FOR SALE — Factory made dovetailed shallow supers with 5 $\frac{1}{2}$ frames, at 70c each. Also 3 wire or 7 wire and wood queen excluders at 60c each. All ten-frame, used, in good condition. Fred Peterson, Alden, Iowa.

HONEYFLOW BEE FEEDER—all metal, like a frame, fits any hive. Holds generous supply of syrup, float for bees. Write for name of dealer. \$2.50 each. W. O. Goebel, Knoxville, Iowa.

OUR FREE BEE SUPPLY CATALOGUE. Lists double boilers, special motors, blowers, etc., not listed by others. We manufacture bee hives, wired and plain foundation, tanks and extractors, etc. Quick delivery from stock. Walter Kelley Co., Paducah, Kentucky.

CLEAN UP AFB with sulfa. 25 tablets 50c; 50, \$1.00; 100, \$1.50; 1,000, \$6.00. Free Circular, quick shipment. WALTER T. KELLEY CO., PADUCAH, KENTUCKY.

BEE SUPPLIES—Lewis Woodenware — Dadant's Foundation. Send for catalog. Simeon Beiler, Intercourse, Pennsylvania.

YOUR WAX WORKED into quality medium brood foundation for 23c pound; 100 pounds \$19.00. Also medium brood foundation for sale at 75c pound. Fred Peterson, Alden, Iowa.

EIGHT AND TEN-FRAME hives and supers (empty) \$1.20 each. Eight and ten frame covers, 90c each. Eight and ten frame bottom boards, 50c each. Eight and ten frame shallow supers (empty) 55c each. Standard Hoffman full depth frames, \$9.00 hundred. Medium brood foundation, 90c pound. Prices F. O. B. factory. Catalog upon request. Hagen-Lunceford Mfg. & Supply, Coeur d'Alene, Idaho.

FOR SALE—25,000 mill run Lewis sections 3 $\frac{1}{2}$ x5x1 $\frac{1}{2}$ scalloped 4 sides $\frac{1}{2}$ inch at \$14.00 per thousand, f.o.b. Hamilton, Ill. Dadant & Sons, Hamilton, Illinois.

WRITE FOR CATALOGUE. Quality bee supplies at factory prices. Prompt shipment. Satisfaction guaranteed. The Hubbard Apiaries. Manufacturers of Beekeepers' Supplies, Onsted, Michigan.

HIVE BODIES, covers and bottom boards, bee shipping cages and nuclei hives. All supplies new and knocked down. Price list furnished on request. A & B Supply Company, Coffee Springs, Alabama.

BEEHIVES—Standard 10-frame beehives and parts. Price list free. Write Hackney Bros. Mfg. Co., 1304 Betty Lane, Fort Worth, Texas.

WINONA, MINN., AREA BEEKEEPER. We carry a complete stock of Lewis-Dadant beeware and containers at all times. For satisfaction, order package bees from us now. Write for prices. Robb Brothers Store, 578 E. 4th St., Winona, Minnesota.

THE ONLY COMB FOUNDATION PLANT in the East. We sell foundation work your wax, render combs and cappings. Twenty-nine years' experience. Robinson's Wax Works, Rt. No. 3, Auburn, N. Y.

HONEY WANTED

Carloads and less than carloads. Mail sample and best prices in all grades.

C. W. AEPPLER COMPANY
Oconomowoc, Wisconsin

SEEDS AND TREES

STUDY YOUR CONDITIONS—plan for better BEE PASTURE. Free circular "SEEDS OF HONEY PLANTS." Melvin Pellett, Atlantic, Iowa.

FREE—A PUSSY WILLOW 2-foot with an immediate order. 3 Pink Tartarian Honeysuckle shrubs 2-foot \$1.20 postpaid. Up to May 30th PLANT 5 Anise Hyssop, 2 year, only \$1.20 postpaid. Will bloom this June till frost. See ad page 51 January or write for illustrated folder. Nicollet County Nursery, St. Peter, Minnesota.

SWEET POTATO PLANTS—Nancy Halls-Porto Ricos. Send no money—pay when received. May prices—300, \$1.25; 500, \$1.75; 1000, \$3.00. 5000, \$13.50. June prices—300, \$1.00; 500, \$1.50; 1000, \$2.50; 5000, \$11.50. Robert Simmons, Sharon Tennessee.

BIRDSFOOT TREFOIL (Northern Certified) \$2.75 pound. Borage \$4.50 pound. Clethra Alnifolia \$3.50 pound. Coriander \$2.50 pound. Catnip, Garden Sage, Horehound, Hollyhock, \$1.00 ounce. Maple syrup \$6.50 gallon. All leather lambskin chore gloves, \$1.50 pair. Postpaid. Robert Mead, White River Jet., Vermont.

RAISE YOUR OWN TREES and shrubs from seed for shade, windbreak, erosion control, etc. Write for free planting guide and price list. Woodlot Seed Co., Norway 1, Michigan.

MISCELLANEOUS

THE BEEMASTER—Free copy, introducing "Scientific Beekeeping." Earthmaster Publications, Dept. 3, Box 547, Sun Valley, California.

KNOW interesting facts concerning the bees of India through the INDIAN BEE JOURNAL, published in English, by The Phupen Apiaries (Himalayas), Ramgarh, Dist. Nainital, U. P., India and obtainable from them. Subs. Rs 7/-or 10 Shillings or 2.25 Dollars per annum. Single copy Rs 1/4/-s. 1/9 or 40 cents (international money order).

RANCH MAGAZINE—Do you find it difficult to secure information about sheep and sheep ranching methods? The SHEEP AND GOAT RAISER reaches more sheepmen with more information on range sheep than any magazine published. Subscription \$2.00. Hotel Cactus, San Angelo, Texas.

THE BEE WORLD—The leading bee journal in Great Britain and the only international bee review in existence. Specializes in the world's news in both science and practice of apiculture. Specimen copy, post free, 12 cents, stamps. Membership of the Club including subscription to the paper 10/6. The Apis Club, The Way's End, Foxton, England.

DAIRY GOAT

DAIRY GOAT JOURNAL—Introductory six month \$1—Columbia 2, Mo.

HONEY LABELS

Improved designs, embodying color, balance, simplicity, and distinction. Please send for free samples & prices.

C. W. AEPPLER COMPANY
Oconomowoc, Wisconsin



Jensen's "Magnolia State" and "Hybrid" D. R. Strains of Italians

Lots of good packages of fresh young bees; the kind that build up fast, and don't die off before the queens have a chance to build good brood nests.

Queens of highest quality, scientifically and conscientiously reared by men of many years' experience. You don't want queens produced or handled by green-horns. Beware of low prices. Experience costs us, but pays you when you use our bees and queens. A few cents per package or queen can make a whale of a difference in ultimate results.

"MAGNOLIA STATE" BEES AND QUEENS

	May 1 Queens	May 20 Queens	2-lb. Pkgs. with Queen	3-lb. Pkgs. with Queen
1-24	\$1.30	\$1.20	\$4.00	\$5.10
25-99	1.20	1.10	3.75	4.75
100-up	1.10	.95	3.50	4.50

"HYBRID" D. R. ITALIAN QUEENS

	May 1	May 20	1-24	25-99	100-up
May 1			\$1.55	\$1.45	\$1.30
May 20			1.40	1.30	1.15

For packages wanted with "Hybrid" queens deduct price of "Magnolia State" queens, and add the price of "Hybrids."

JENSEN'S APIARIES
MACON, MISSISSIPPI

Italian Package Bees & Queens

Red Stick Apiaries & Co.

113 Lee Ave., Donaldsonville, La.

3-Banded Italian Bees and Queens

2-lbs. with queen \$3.50, 50 up \$3.35
3-lbs. with queen 4.50, 50 up 4.25
4-lbs. with queen 5.50, 50 up 5.00
Only 20% down to book your order, balance 15 days before shipping date. Health certificate and live delivery guaranteed with every shipment.

CLOVER BEE FARMS
HESSMER, LOUISIANA

G. B. Lewis Wooden Goods !

DADANT'S WORLD FAMOUS CRIMP WIRED FOUNDATION—Their 85 years' experience is your safeguard.
Catalogue on request.

Dotson's Apiaries

3050 W. Roxboro Rd. N. E., Atlanta, Georgia

QUEENS

FOR MAY AND JUNE

Caucasians and Italians

Mated to Italian Drones

PRICES

\$1.10 each for 1 to 50
1.00 each for 50 to 100
.90 each for 100-up

Also a few packages left for May delivery at \$4.00 for 2-lb.; \$5.00 for 3-lb. packages.

L. E. Halstead Apiaries

6442 E. Tulare, Fresno, Calif.

PACKAGE BEES & QUEENS

2-lb. and queen	1-49	50-up
3-lb. and queen	\$3.65	\$3.50
	4.65	4.50

Queens after May 20, 75c each.
50 or more, 60c each.

J. W. HENDRIX

WEST POINT, MISSISSIPPI

FOREHAND'S

Italian Bees and Queens

GUARANTEED TO PLEASE YOU

2-lb. pkg. with queen	1-25	25-up
3-lb. pkg. with queen	\$3.50	\$3.00
Queens	4.50	4.00
	1.00	.90

Write for summer prices, starting May 20.

45 years among the bees.

HUBER FOREHAND

SATSUMA, ALABAMA

BEE BOOKS

HISTORY OF AMERICAN BEEKEEPING
by Frank C. Pellett. The fascinating story of the beginning and growth of America's honey industry. \$2.50.

American Bee Journal

HAMILTON, ILLINOIS

Production to Meet Demand Is My Problem

by Frances R. Gillum



"divided up" the lot. In quick order I disposed of honey from my dozen hives. My sales were at the equivalent of 75c—80c per five pounds though I stated I would not retail less than 20 pounds at this price. In the pail, my honey goes for a dollar regardless of color and flavor, candied or liquid state. My customers understand that; they know, too, that I approve of carefully labeling of a commercial product and they admire my evasion of a market which should be controlled.

Will I follow my 1948 plan in 1949? You bet I will! And if I weren't darned lazy I would build a bigger bee yard.

New York.

Mrs. Fred Creech, former Secretary-Treasurer of the Cortland County Beekeepers Association, writes under maiden name, Frances Gillum.

The files of the bee business are filled with success stories about people, like myself, who began beekeeping in a small way. I have no aspirations along the line of big business, but in my community I am known as a small beekeeper and that is what I want to remain.

It is my opinion that since the war the market for honey has run into snags for all kinds of beekeepers. I experienced a dull market last year, but this year my problem has been one of supplying the demand for honey from yard.

In the spring, this year, I had most of my 1947 crop still on hand. I had steady customers, to be sure, but they didn't use much honey and would not take my tins in a million years; so I resolved that if I was to extract my 1948 crop, I wasn't going to store one drop of it. Like a woman, I got busy on the telephone; like a man I advertised in the mails—via penny post cards. I said in effect that I was selling honey in bulk this year and orders would be filled in containers left by the customers. In order to stimulate business and at the same time impress my trade with the opportunity they were experiencing, I stated that the special price was in effect only at the specified time, during which I was extracting my crop.

Results exceeded my expectations. Two sisters with families living apart took 30 pounds apiece. Friends brought big containers and at home

Canadian Beekeeping Council

The February "Western Canada Beekeeper" is almost exclusively devoted to the activities of the Canadian Beekeeping Council, a National group similar to our American Federation.

The chief object now seems to be the prompt disposition of the balance of the 1947 and 1948 Canadian honey crops. Apparently it will be impossible within any time soon to make exports to the British Isles which were formerly an excellent outlet for Canadian honey.

So far, the Dominion government has refused to put a floor on honey prices, though floors are in effect on many agricultural items—same as in U. S. A. However, a fifty-fifty arrangement has been consummated, the Council and the Government each putting \$6,000 into an advertising campaign for honey popularization.

Ontario, Manitoba, and Saskatchewan have sanctioned a tax on honey containers to go to the Council. Other provinces are considering similar action. Grading regulations are far more advanced than in the states, and the Council is active in planning for research both in beekeeping and honey.

Dominion Apiarist C. B. Gooderham has asked for retirement and the Council, in turn, is asking that they be consulted on his successor.

A Visit to the Laboratory At Laramie

(Continued from page 237)

common half-gram tablet of sulfathiazole are equally effective in the treatment of American foulbrood. While they have substantiated some of Dr. Haseman's and Mr. Childers' claims with respect to sulfa treatment of American foulbrood, they have not been able to confirm any claims that this drug is effective in the treatment of either European foulbrood or Nosema disease. In fact, they report that some of their colonies developed serious cases of European foulbrood while being treated with sulfa sirup for American foulbrood.

In spite of these exhaustive researches, just what happens when sulfathiazole is fed to bees is still unknown. They do know that the drug enables the bees to survive the disease. And it is Dr. Burnside's opinion that sulfa either permeates the combs somewhat like arsenic does in a case of poisoning, or that it gets into the brood food of the nurse bees in some manner. Studies of the sulfa treatment are being continued and it can be expected that in time much information of value will result.

In addition to this work, the Laramie men are continuing to study Nosema disease, European foulbrood, paralysis, and other diseases of bees. They have a large and very well-equipped laboratory for their experimental work and for the diagnosis of samples of bees and brood for disease and for poisoning. Besides his work on diseases, Hitchcock has made an extensive study of the mortality of bees and the collection of pollen.

You will find a visit to the Inter-mountain States Bee Culture Laboratory a pleasant, interesting, and worth-while experience. The laboratory is in the Engineering Building on the campus of the University of Wyoming. But it is more than probable that you will have to go out to the bee yards to find the four experimenters—decked out in bee veils and hard at work examining colonies—just as I did.

Five Hundred Issues

"La Gazette Apicole," of France, whose editor is Mr. George Alphan-dery, announces that its July, 1948, number is its 500th since beginning. The Alphan-dery family is quite prominent in French apiculture.

May, 1949

Electric Uncapping Knife



This knife heats in 15 seconds and operates with a steady heat regulated by an adjustable thermostat in the handle. No control boxes. New design in plastic handle.

110-115 V. AC only.

Cotton Cord \$13.50 while they last.
6-ft. rubber cord \$15.00.

MACY ELECTRIC KNIFE COMPANY

1239 S. LORENA ST.

LOS ANGELES 23, CALIFORNIA

THREE-BANDED ITALIAN BEES AND QUEENS

Compare the prices at right with your honey price and figure your gain. Even though prices have been cut to rock bottom you still get quality bees, full weight packages. Prompt shipment, a health certificate, and live arrival guaranteed. Take advantage of this offer now.

PRICES	Through May 10	After May 10
2-lb. pkg. with queen	\$3.50	\$2.80
3-lb. pkg. with queen	4.60	3.60
4-lb. pkg. with queen	5.80	4.50
Queens, each	.90	.75

FARRIS HOMAN

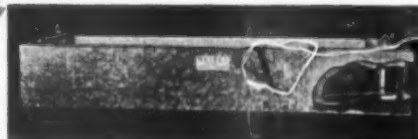
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Don't miss reading the Classified Ads

Crop and Market

In another column of the American Bee Journal appears the decision of the U. S. Department of Agriculture to buy some 12,000,000 pounds of honey. This no doubt is having a salutary effect on honey prices in general.

Bee Conditions and Losses

In general, the condition of bees is good. This is particularly true throughout all eastern and south-eastern sections and across most of the South including the central west up to Indiana. However, in Illinois, Iowa, and the southern sections of Minnesota and Wisconsin, and extending into the plains territory of eastern Kansas, and Nebraska, bees are not in very good shape particularly because of lack of stores.

The losses in the eastern areas have been negligible. In the central areas and extending into the plains states, losses are much heavier than usual, running as high as 10 to 50 percent with some beekeepers. Losses have not been excessive farther west except in some sections of Colorado, Wyoming, Utah, and Nevada. Losses are moderate farther north and on the Pacific Coast.

Honey Plants and Moisture

Practically everywhere the honey plants are reported in good condition, although some dry weather last fall has reduced the possibilities of Dutch white clover and some other clovers. There is more damage presumably from the sweet clover weevil.

On the whole, plants are in as good condition as last year, especially when we consider the very bad crop in the central western areas, Florida reports dry conditions and south Georgia has had a near failure of the earlier crops. There are some dry sections in Minnesota extending into Wisconsin, and in the Black Hills section of the Dakotas. The eastern slope of Colorado and part of Wyoming also report dry conditions, but otherwise snows have been excellent and the amount of moisture is considered satisfactory. California, while dry in the non-irrigated sections, has had more moisture than a year ago and prospects look better for a crop, although reports are that colonies were far ahead of orange blossoms which were nearly a month late. Surprisingly the orange bloom in

M. G. Dadant

Florida did better than had been expected after the freeze.

Per Cent Honey On Hand

This varies, but in general, the eastern and southern sections have comparatively small quantities left except for a few large beekeepers who have a fair per cent. This does not apply, however, to buckwheat in New York and Pennsylvania, there being a considerable percentage left on hand. Farther west in Michigan and through the sections of Wisconsin, Minnesota, Iowa, and the plains states which had a crop last year, we find a larger percentage of honey in the hands of the larger beekeepers. In some instances, it runs from 20 to 50 per cent, and in others the sales have cleared the producer, although probably 25 per cent of the honey of cooperative members still will be in the hands of cooperatives when the new crop is available. Considerable quantities of honey on hand particularly amber grades appear to be prevalent throughout the intermountain areas extending into Utah and even into some sections of California.

Retail Prices

There has been a considerable slump in retail prices. We hear of sales at retail as low as 19 cents for one pound jars and 79 cents for five pound pails. This is in central western territories. The usual average price will run about 30 to 32 cents on one pound and from \$1.00 to \$1.25 for five pounds retail.

Jobbing

Jobbing prices in many cases depend on what the packer is paying for honey. We learn of as low offers on amber as 5½ cents and as low on white as 8 cents. The usual suggested quotations however, are about 8 to 9 cents on amber and 10 to 11 cents on white, many sales being shaded to clear the market and get cash.

Crop Possibilities

It can be readily understood that crop possibilities are at least as good

as they were a year ago. Moisture and honey plant conditions are the equal of 1948 and in many instances better, so in a long-range forecast the honey crop this year per colony run probably will be better than in 1948.

As to the number of colonies available, we will see a big shrinkage. Many of the large producers, especially those who had heavy losses, are not going to recoup the losses, and may run only 70 to 75 per cent as many bees as a year ago. This also applies to some beekeepers who have not been able to get the money out of their honey, had to kill their bees last fall, and are therefore unable to pay for new packages this year. The shrinkage in packages is undoubtedly going to be great, although some package shippers report that they are pretty well booked for the season.

Canadian Provinces

We have not mentioned the Canadian provinces. Losses there are not excessive, but replacements are going to fall short on account of the lack of money to purchase them, and we may look for only 75 per cent as many bees in the hands of commercial producers as previously. Bees in general have come through in good shape, and the moisture prospects are satisfactory except probably in the province of Quebec.

Honey prices in the Canadian provinces are gradually getting down to U. S. levels, although retail prices are still above. However, there has been a decided and definite slump in prices and the amount of honey still left on hand is quite large, running probably 20 per cent of the total. All 1947 honey likely has been sold, but much of the 1948 crop will remain on hand.

Cowan Library

The Cowan Memorial Library located with the Ministry of Agriculture, in London, and named after T. W. Cowan, now contains 1800 volumes on bees. Cowan, our readers will recall, wrote "The Honeybee" which appeared in many editions in England. Also wrote "Waxcraft," another nice little book, now out of print.

HONEY WANTED— Care and less than care
TOP PRICES
C. W. AEPPLER CO., OCONOMOWOC, WIS.

Modern Beekeeping

The picture magazine of beekeeping. We show you with pictures how to do the job easier, quicker, and better. Special inventor's page.

1 yr. \$1.50; 2 yrs. \$2.50; 3 yrs. \$3.25

MODERN BEEKEEPING
PADUCAH, KENTUCKY

WHITE PINE BEE FARMS

ROCKTON, PENNSYLVANIA

Northern bred Italian queens from hardy honey gathering stock, \$1.00 each. Prices on quantity lots and package bees on request. We begin shipping week of May 15.

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Gives the latest news and views of the rabbit world—an illustrated monthly magazine of general and educational features. 1 year, \$1.00; 3 years, \$2.00; sample 15c.

American Rabbit Journal

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QUEENS \$90.00 per hundred

D. T. WINSLETT

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Subscription \$1.50 per year, \$2.25 two years, \$3.00 three years. In combination with American Bee Journal \$2.50 per year.

Timely topics on western Canadian beekeeping and all the news about Canada and Canadian markets. You cannot afford to be without the most up-to-date information in these days of great changes. Sample copy free. Address **WESTERN CANADA BEEKEEPER**, 211 Affleck Building, Winnipeg, Manitoba, Canada.

KOEHNEN'S

Package Bees and Queens
For Quality and Service

KOEHNEN'S APIARIES
GLENN, CALIFORNIA

Italian Package Bees and Queens

3,000 QUEENS FOR MAY AND JUNE DELIVERY.

Have open dates for May package bees.

F. E. MORRISON

Route 3, Box 3696, Auburn, Calif.

WANT TO INCREASE YOUR HONEY CROP?

Use our **LEATHER ITALIAN BEES and QUEENS**

	Queens	2-lb.	3-lb.	4-lb.	All package bees shipped express collect unless otherwise specified. We guarantee live arrival.
1-24	\$1.30	\$4.25	\$5.30	\$6.35	
25-99	1.20	4.00	5.00	6.00	
100-up	1.10	3.75	4.70	5.65	

EVANGELINE BEE CO.

BREAUX BRIDGE, LOUISIANA

CAUCASIAN QUEENS

You can now get **BETTER QUALITY** Caucasian queens throughout the season. And save money, too. Summer prices are effective on May 25th for the balance of the season.

THOS. S. DAVIS

Route 7, Box 3914

Sacramento, California

Breeding **BETTER CAUCASIANS** for more than twenty years.

PRICES REDUCED

You can stock those hives with **BESSONET'S** bees and queens during May at the following prices:

Quantity	Queens	2-lb. Pkgs.	3-lb. Pkgs.
1-24	\$.80	\$3.25	\$4.25
25-up	.75	3.00	4.00

Bessonet Bee Company

DONALDSONVILLE, LOUISIANA

Same quality and service as in the past assured.

ITALIANS AND CAUCASIANS

Bred to Italian Drones

Our leather-colored Italians are bred for their honey producing and good wintering qualities. For those who prefer the Caucasians we breed them in separate queen yards. In 1948 we shipped package bees to Fairbanks, Alaska and our customer says they arrived in good condition. We guarantee save arrival.



	1-24	25 and up
2-lb. with queen	\$3.75	\$3.50
3-lb. with queen	4.75	4.50
4-lb. with queen	5.75	5.50

Extra queens, any number, \$1.00 each.

20% down books your order, balance 10 days before shipping.

LOUIS L. COUCH

Pineville, Louisiana

"The Village Beekeeper"



The Heart of Comb Honey Is Foundation

The biting quality of the honey, that delicate center taste is foundation. It must become a part of the honey, so tender, a touch of the tongue will crumble it; yet be so strong that bees work it out quickly and easily. Dadant's Surplus Foundation, fragrant and pure, thin and sweet, blends naturally with your finest comb honey, that your market grades are better and sales are quicker.

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Hamilton, Illinois

**CHOOSE LABELS WISELY—
A-B-J LABELS GET RESULTS**

You get the results you want from an ad in the **A-B-J**

LITTLE & MOORE APIARIES
ORIGINALLY
LITTLE'S APIARIES

**The JOHN M. DAVIS
STRAIN Italian Queens**



Guaranteed to please
or money refunded.
April 15th to June 1st,
1 to 10, \$1.25 each
June 1st to November
1st, \$1.00 each,
any number.

LITTLE & MOORE APIARIES
SHELBYVILLE, TENNESSEE

BEE SUPPLIES

We have a fair stock of every-
thing for the beekeeper and can
give prompt service. Send us
a list of your spring require-
ments and we will quote you
our best prices.

Ask for our price list.

A. H. Rusch & Son Co.
Reedsville, Wisconsin

Canadian Bee Journal

Canadian beekeepers have much in common
with their neighbors in the U. S. If you are
interested in bee activities "North of the
Border," send us your subscription NOW.
Subscription price, \$1.25 per year in U. S. A.

CANADIAN BEE JOURNAL
54 Bloor St. West, Toronto 5, Ontario



**PACKAGE BEES
AND
QUEENS**

**THREE-BANDED ITALIAN BEES AND
QUEENS—BEST OF QUALITY.**

2-lb. package and queen \$4.00
3-lb. package and queen 5.00

Write for prices over 25 packages.
Select Untested Queens

1 to 25, \$1.25. 25 to 50, \$1.20. 50-up \$1.15
All bees shipped in new cages and health
certificate with every order.

Alamance Bee Company
Geo. E. Curtis, Mgr. Graham, N. C.

LIFE OF LANGSTROTH
By

FLORENCE NAILE

A complete biography of the
inventor of the movable frame
hive.

Cloth bound.
215 pages.

\$2.50

American Bee Journal
Hamilton, Illinois

Previews of Coming Events

(Continued from page 254)

who plan to exhibit should notify the
secretary as soon as possible. He will
be in charge of the Apiary section.
Address: Route 7, Box 47, Terre
Haute, Indiana.

**South Arkansas,
El Dorado, May 28**

The next meeting of the South
Arkansas Beekeepers Association
will be held in El Dorado, May 28,
1949. A cordial invitation is ex-
tended to everyone who is interested
in the progress of the beekeeping and
farming industries.

W. R. Risinger, Sec'y.

**Von Frisch Lecture, State University
of Iowa, Iowa City, May 19**

Dr. Karl von Frisch will give a
public lecture on May 19 at 8:00
P. M. in the Chemistry Auditorium
on the campus of the University of
Iowa. His topic will be "The
Language of Bees."

**University of Minnesota Short
Course, May 11, 12, 13.**

The seventh annual Beekeepers
Short Course and training school for
state apiary inspectors will be held
May 11, 12, and 13 at the Agricultural
Botany building, University Farm,
St. Paul, 1, Minnesota. Registration
fee is \$3.00 and the courses will be
under the guidance of experts in
various fields of beekeeping. The
evening program on May 12 will con-
sist of an address on bee dances by
Dr. Karl von Frisch.

Missouri Has New Society

Beekeepers assembling at Colum-
bia, Missouri, on April 5, 1949, saw fit
to dissolve the Missouri State Bee-
keepers' Association. With a new
set of by-laws, the Missouri Api-
cultural Society was instituted. This
is the resurrection of an earlier
society and will consist of county
and local organizations of beekeepers
all over the state. Affiliation with
the American Beekeeping Federation
was voted, and the following officers
elected: President, Geo. C. Nagel,
Maplewood; Vice-President, Ed. L.
Lindley, Russellville; Second Vice-
President, Byron R. Smith, Liberty;
Third Vice-President, Wilson Ratliff,
Shelbina; Secretary-Treasurer, Geo.

D. Jones, Columbia. The new Society
intends to emphasize work on legis-
lation affecting beekeeping and the
spraying and dusting of insecticides
and herbicides. Emphasis will also
be placed on such matters as market-
ing honey, development of bee
pasture, and the importance of polli-
nation.



**Virginia Extension Service Employs
George H. Rea**

The Extension Service in Agri-
culture and Home Economics of the
State of Virginia has secured the
services of George H. Rea as bee
specialist for the months of April,
May, September and October. Mr.
Rea has had long experience in the
field of beekeeping and will assist
county extension workers in con-
ducting meetings and demonstrations
on spring management problems,
such as transferring bees, swarm
control, introducing packages, re-
queening, feeding, and disease con-
trol. In September and October, he
will devote his attention to fall
management problems—requeening,
fall feeding, uniting, disease control,
preparation for wintering, and pack-
aging and labeling honey. Agents
desiring to schedule Mr. Rea's service
during April and May should send
their requests to J. O. Rowell, Ex-
tension Entomologist, Blacksburg,
Virginia, and in order to use his
help to the best advantage, call group
meetings or demonstrations.

W. H. Daughtrey,
Associate Director.

Healthy Italian Queen Bees
GUARANTEED LIVE DELIVERY
 Certificate with each shipment.
 PRICE \$1.15
HENRY & SONS
 BOURG, LOUISIANA

● **HIGH GRADE ITALIANS** ●
 Carefully selected and bred from best
 2-lbs. with queen \$3.00
 3-lbs. with queen 4.00
 Queens 90 Cents.
 Guaranteed full weight and prompt shipping date.
SOUTHERN QUEEN BEE FARM
E. J. COCO, Hamburg, Louisiana

ROOT BEE SUPPLIES
Comb and Cut Comb Packages
 Honey Containers in all sizes.
 Prompt Service.
Michigan Bee & Farm Supply
BOX 7 LANSING 1, MICHIGAN
 Successor to M. J. Beck Co.

Every mail brings in more and more orders
 for "Silverhide" Ready-mixed Aluminum Paint
 from beekeepers, located all over the U.S.A.
 They have found that it really keeps their
 hives from 10 to 15 degrees cooler in the
 summer and 10 to 15 degrees warmer in the
 winter. Write for our circular and prices.
TUNG OIL PAINT MFG. CO., Inc.
BOX 83 ORANGEBURGH, N. Y.

BEEES AND QUEENS
ITALIANS or CAUCASIANS
 2-lb. package with queen \$3.75.
 Health certificate and live delivery
 guaranteed. Prompt shipments.
LITTLE RIVER APIARIES
BOX 83 GAUSE, TEXAS

BARGAIN ON
Italian Package Bees
 With queen, 3-lb. package \$4.50
 Queens 1.00
Adolph Chabaud
RT. NO. 1, BOX 357, RESERVE, LA.

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 The Leading Bee Journal of
 Southern Hemisphere is the
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 now to The Editor P. O. Box 20, West
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Saves time and energy for beekeepers large or small. A light weight handy instrument used for loosening and removing the frames from the hive with one hand.
 Price \$3.00 plus 18c postage fee. Satisfactory dealer discounts.

MCCORD MFG. CO.

RT. 2, BOX 866, SAN JOSE, CALIFORNIA

Renew Your Subscription

May, 1949

Leather Italians Caucasians

**QUEENS—Any Number,
50c each, GUARANTEED**

2-lb.	3-lb.	4-lb
\$2.75	\$3.50	\$4.50

Add 25c for packages with Rich's all Italian Hybrid Disease Resistant Queens.

Prices reduced to meet the conditions within our industry and help you stay in business.

We will ship packages only until June 20th. Queen shipments until November 1st.

THE RICH HONEY FARMS

**Rich's All Italian
Hybrid Disease
Resistant QUEENS**

A NEW TYPE BEE

**Northern Bred All
Italian**

This is a cross of pure Italian bees to produce a strong, gentle bee that is superior in vigor and has positive resistance to American foul-brood.

This stock is produced and maintained by northern honey producers at much expense. We help pay that cost.

	May-1-19	May 20
1-24	\$1.55	\$1.40
25-99	1.45	1.30
100-up	1.30	1.15

Jeanerette, Louisiana

PLANT'S PRODUCTIVE VIGOROUS ITALIANS GENTLE AND EASY TO HANDLE

Never any disease in our queen or package yards. Health certificate with each shipment.

Safe, full weight arrival. Shipped as agreed in new light weight cages. Satisfaction guaranteed.

All queens, including those with the packages are young, laying properly and perfect in every way.

MAY PRICES—EFFECTIVE MAY 5TH

Queens	Package Bees	
	2-lb. with queen	3-lb. with queen
\$1.00	\$2.80	\$3.60

W. E. PLANT

Rt. 2, Hattiesburg, Mississippi

QUEENS-Packages 3-Banded Italians

**RUSH ORDERS THROUGH
WESTERN UNION**

PRICES AS FOLLOWS

2-lb. and young laying queen (each)	\$3.25
3-lb. and young laying queen (each)	4.00
4-lb. and young laying queen (each)	4.75
Queens (Postpaid)	.75

Queenless packages, subtract price of queen.
 Efficient—Rapid—Honest Service.

EELLS HONEY & BEE CO., Houma, La., U.S.A.

"IN THE SUNNY SOUTH"



A-B-J WANT ADS PRODUCE RESULTS

BLUE RIBBON
Package Bees and
Italian Queens

•
 Booked full to April 20th.
 Write for prices.
 •

FOSTER APIARIES
 COLUSA, CALIFORNIA
 Successor to Thos. C. Burleson

Hardy Northern Bees

Due to early build-up of our bees this spring we offer after May 15th a limited number of Pure Italian Package Bees of the same northern quality we successfully shipped to Sweden and China. 3-lb. pkg. with young queen \$4.75. Unit. queens \$1.00. Tested \$2.00. Health certificate with each shipment. Quick service—Satisfaction.

Barger Apiaries, Carey, Ohio

THRIFTY BEES
COMBLESS PACKAGES
AND QUEENS

3-Banded Italians
ONLY

Let us quote you our
NEW LOW PRICES.

We can make prompt shipment. Write or wire today stating number of packages or queens wanted.

REMEMBER—
 Thrifty Bees always please
W. J. Forehand & Sons
 Fort Deposit, Alabama
 Breeders Since 1892

Choose
Labels
Wisely

- Designs that Compel Attention
- Colors that Blend and Please
- Wording that Makes a Sale

You can't go wrong with A-B-J Labels. They sell honey and are priced right. Send for complete catalog.

American Bee Journal
 Hamilton, Illinois

WEAR A
BUDDY
POPPY



VETERANS OF FOREIGN WARS OF THE U.S.

YORK'S
PACKAGE BEES AND QUEENS

QUALITY BRED ITALIANS

The Strain Preferred by Leading Honey Producers

PACKAGE BEES WITH QUEENS

	1-24	25-99	100-up
2-lb.	\$4.00	\$3.75	\$3.50
3-lb.	5.00	4.75	4.50
Queens	1.20	1.10	1.00

PRICES AFTER MAY 20TH, AND BALANCE OF SEASON

2-lb.	\$3.50	\$3.25	\$3.00
3-lb.	4.50	4.25	4.00
Queens	1.00	.85	.75

For queenless packages, deduct price of queen

Enlarged facilities and increased production on high quality queens enable us to give you prompt service on any quantity. None better regardless of price.

YORK BEE COMPANY, Jesup, Georgia, U.S.A
 (The Universal Apiaries)

If you buy or sell advertise in ABJ

Bees for Soil Conservation

(Continued from Page 235)

sought the help of local beekeepers to provide pollination services. Where local facilities were insufficient they have sought the aid of outside beekeepers. The districts have provided advance information on acreages and locations of legumes to be grown, thus enabling apiarists to arrange to have bees at hand.

The district supervisors of the Upper Sabine Soil Conservation District in Texas, where bees have been used, estimate that planned pollination has increased Hubam clover seed yields at least 40 per cent. Last year more than 3,000 hives of bees were there, and every acre of legumes was serviced. Hubam seed shipments from that district have grown from one carload in 1945 to thirty carloads in 1947.

The opportunities for expanded work between soil conservation districts and beekeepers are great. These districts are organized by local farmers and ranchers by vote under state legislation. They are administered by locally elected governing bodies and can call upon the aid of any individual or agency capable of helping them further conservation. Game conservation agencies, nurseries, the Soil Conservation Service, chambers of commerce, and other organizations are finding it advantageous and profitable to gear their efforts to districts.

Beekeepers have responded well to the requests of soil conservation districts in the Western Gulf Region. They have, in numerous instances, expanded their facilities to meet the needs. Some have moved their bees long distances to provide pollinating services. Individual beekeepers have spoken before boards of supervisors or groups of district cooperators upon the subject of pollination.

The planned pollination program under way in the Western Gulf Region has added new beekeepers to the ranks of the profession, for a number of seed growers have obtained their own bees.

Several expert beekeepers have stated that soil conservation holds the greatest promise to the apiarist, and in certain localities has put beekeeping on a paying basis. Beekeeping holds promise, too, for soil conservation, and it may make the production of seeds of conservation plants a more profitable enterprise.

PACKAGE BEES—QUEENS CAUCASIAN—ITALIAN

No man is further from the market than the man who has nothing to sell. We are ready to serve you efficiently with first class tested stock.

2-lb. package with queen \$4.00

3-lb. package with queen 5.00

Quantity discounts.

THE COFFEY APIARIES

Whitsett, Texas

Italian Package Bees & Queens For '49

5000 Packages for Spring Delivery at the following prices:

	1-24	25 and up
2-lb. package with young laying queen	\$3.75	\$3.50
3-lb. package with young laying queen	4.75	4.50

Extra queens (any number) \$1.00 each.

SPECIAL—1000 4-frame nuclei for late April delivery. \$1.00 per package deposit books your order, balance ten days before shipment is made. We guarantee live delivery, a health certificate with each shipment and service you can depend on.

QUALITY DOES NOT COST—IT PAYS.

THE WILBANKS APIARIES

Claxton,

Georgia

YOU CAN BE SURE IF ITS "SUREWAY"

A NEW "SUREWAY" OF INTRODUCING QUEENS



GROVER MOBLEY, ONE OF THE WEST'S BEST KNOWN COMMERCIAL PRODUCERS SAYS:

"On April 5th I received by mail 100 queens, all in the wood 3 hole shipping cage. 50 of these were introduced in the wood cage and 50 were introduced in the 'Sureway' cage. One hundred per cent acceptance was obtained in the Ashurst type and ninety per cent in the wood type. It was necessary to make a return trip to remove the wood cage whereas the Ashurst cage was completely removed by the bees themselves.

In addition to this perfect acceptance with less cost, the queens seemed to have started laying on an average of three days quicker than those introduced in wood cages. In the future I will ask that all my queens be shipped in 'Sureway' cages."

GROVER MOBLEY.

INSIST THAT YOUR QUEENS BE SENT IN "SUREWAY" CAGES and get 99 to 100 per cent acceptance—no need to return to the hive to remove the cage—the bees do it.

SUPERIOR HONEY CO.

5201 District Blvd.

Los Angeles, Calif.

WRITE FOR FREE SAMPLE.

Other Branches Located In

Madera, Calif.; Phoenix, Arizona; Ogden, Utah; Denver, Colorado and Idaho Falls, Idaho

If you buy or sell advertise in ABJ

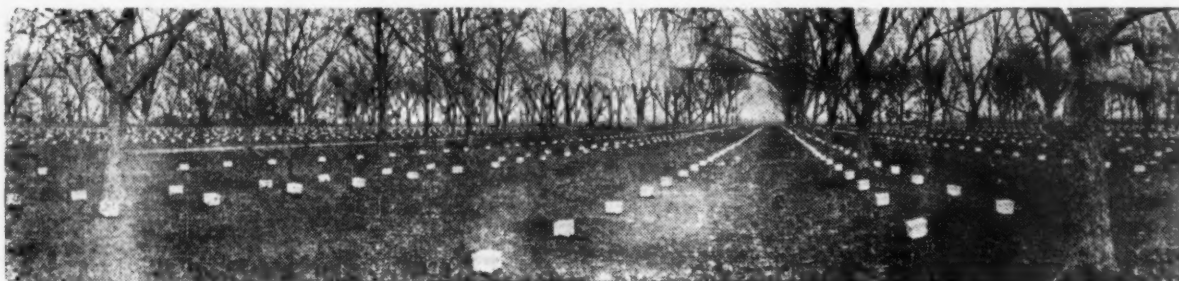


Photo shows a part of one of our queen yards with 10,000 nuclei

ITALIAN BEES YOUNG QUEENS

RESERVE YOUR 1949
DATE NOW
No Deposit Required
For Early Booking.
Large Queen Orders
Solicited.



	1-24	25-49	50-99	100-up
2-lb. package with queens	\$4.50	\$4.25	\$4.00	\$3.75
3-lb. package with queens	5.25	5.00	4.75	4.50
4-lb. package with queens	6.00	5.75	5.50	5.25
5-lb. package with queens	6.75	6.50	6.25	6.00

For price of queenless packages, deduct the price of the queens.
Write for our full folder on package bees and queens.

OVERBEY APIARIES,

Louisiana's Largest Package Bee
and Queen Shippers

Bunkie, La.

Puett's Prices Reduced

Puett's Quality Italian Bees and Queens
now available at new low prices.

	1-9	10-49	50-99	100-up
2-lb. package with queen	\$4.10	\$3.85	\$3.65	\$3.50
3-lb. package with queen	5.10	4.85	4.65	4.50
4-lb. package with queen	6.10	5.85	5.65	5.50

Extra queens \$1.25. For queenless packages deduct \$1.25. For loose-queen packages (late shipment only) add \$1.00. **TERMS**—All orders should be accompanied by \$1.00 per package deposit to confirm and hold shipping date, balance payable before shipment. Deposit refunded if order is cancelled 10 days before shipping date.



Puett now manufacturing division
board feeders. Made of Masonite,
glued and nailed to gum frame.

PRICE—75 Cents

The Puett Co.

Dept. A

Hahira, Ga.



GOOCH'S BEST ITALIAN PACKAGES AND QUEENS

If it is production you want, remember each queen purchased from us will be the daughter of a queen that has produced 300 pounds or more of honey in one season. Let us prove to you that our bees and queens live up to the excellent reputation they have built for themselves by mailing you copies of unsolicited letters praising their performance.

	LOTS 1-10
3-lb. package with queen	\$4.40
3-lb. package with queen	5.50
QUEENS (each)	1.35

We guarantee to refund to you 10c per package per day
if shipment is not made within five days
of date agreed upon.

LIVE DELIVERY AND SATISFACTION GUARANTEED



YOU MAY BUY FOR LESS, BUT WILL YOU GET THE BEST?

JESSE E. GOOCH & SONS

Route 3, Pine Bluff, Arkansas

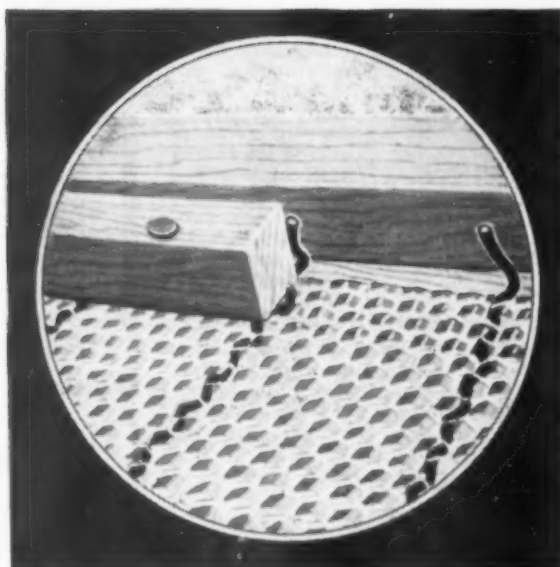


Save Money— Increase Crops with Dadant's ^{CRIMP}WIRED Foundation

Combs from Dadant's Crimp-Wired Foundation have little non-profit space—no sagged areas; no distorted cells; few drones. There will be very few combs to discard. Each comb, with care, will last almost as long as equipment. Each comb is a long term investment. Each comb starts to save you money the moment it is built by the bees from this sturdy foundation. In the end you will find your combs are the least expensive you can possibly get.

You will be proud of your combs

Built from Dadant's Crimp-Wired Foundation, in a flow, over the brood nest, every comb will be beautiful and stay that way. Each comb will have straight rows of worker cells, so that, with a young vigorous queen in each colony, you get worker brood all through each brood comb. Super combs, as a result, become largely filled with honey, ready for a maximum load in the extractor. This all means larger colonies; greater crops; more profits.



Surplus Foundation

Carefully milled, hand sorted. Nice straight rows of uniform cells. Carefully packed in tissue to reach you without damage.

Plain Foundation

Light colored, clean, sweet beeswax. It quickly becomes a delightfully edible part of fine section comb and bulk comb honey.

DADANT & SONS
INC.

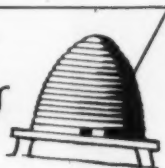
DADANT'S FOUNDATION
CHOICE OF EXPERT BEEKEEPERS

HAMILTON, ILL.

Beeswax Wanted: We buy at all times. Drop us a card stating quantity you have to offer

Honey

*Healthful • Delicious
• Highly Nutritious*



The new slogan of the American Beekeeping Federation, now in use throughout the industry, was written by Mrs. Glenn N. Crawford of Humboldt, Iowa, and won first place in the Federation Slogan Contest. Remember to use it in your own advertising. Newspaper mats of the slogan (one inch high by two columns wide) may be obtained from the office of the Secretary of the Federation, Atlantic, Iowa, for 25c and will save you advertising expense. Order one now!

CAUCASIAN QUEENS

Lohman Bee Co.

Rt. No. 1, Box 340C, Loomis, Calif.

Solomon had pancakes for breakfast
The honey ran out, by the way
His wives were so many
Some did not get any
So the very old scratch was to pay.

NOTE—If Solomon had had our queens there would have been plenty of honey for all his wives and his cones and all hands.



MY NEW POLICY

Some time ago I had thought of retiring but due to the many, many letters I have received urging me to stay with the bees and others regretting that I was quitting, I have decided to stay in the game.

My New Book "Better Queens"

You will want this book. It is printed by Judd & Detweiler, printers of the National Geographic Magazine and is a work of art. Excuse my boasting but I believe the contents is equal to the printing. It is a book you will be proud to have in your library.

Correspondence Course in Queen Rearing

We are now offering the above course in order to help you to rear better queens. For further particulars, write for our new folder.

PRICES

Untested Queens, \$2.00 each
Our best Breeding Queens 5.00 each

Our book

"Better Queens" \$4.00, Postpaid

JAY SMITH

ROUTE 2, FORT MYERS, FLORIDA

Italian Package Bees & Queens

	1-49	50 up	20% down, balance 10 days before shipping date.
2-lbs. with queen	\$3.50	\$3.25	Health certificate and live delivery guaranteed
3-lbs. with queen	4.50	4.00	
4-lbs. with queen	5.50	5.00	
Queens	1.00		

Napoleon Guillory Apiaries
MARKSVILLE, LOUISIANA

FORGOTTEN ANYTHING?

Contest closes May 1, 1949 (See January '49, ABJ). Order now to insure desired dates of delivery. Selected Parent Stock Each Year.

QUANTITY	QUEENS	PACKAGES WITH DR QUEENS
1 to 9	\$1.30 each	2-lbs. 3-lbs. 4-lbs.
10 to 49	1.20 each	\$4.00 \$5.00 \$6.00
50 to 99	1.10 each	3.75 4.75 5.75
		3.50 4.50 5.50

IOWA BEEKEEPERS' ASSOCIATION
STATE HOUSE, DES MOINES 19, IOWA



A NEW TYPE QUEEN BEE

Six generations of controlled mating and careful research work has gone into production of these northern bred, all-Italian hybrids. Progeny tested for honey production temper, resistance to foulbrood, and other valuable qualities. WRITE FOR PRICES.

J. M. CUTTS & SONS

Chipley, Florida



Three-Banded Italian Bees and Queens

We produce and ship the very best bees and queens that money can buy. We can supply you with young bees, and purely mated Italian queens.

Queens—Any number, 75 Cents	\$2.75
2-lb. package, any number	\$2.75
3-lb. package, any number	3.75

QUEENLESS PACKAGE, DEDUCT, 75 CENTS. NO DISEASE.
Fast service. Live delivery guaranteed.

LUCEDALE APIARIES

Lucedale, Mississippi

YELLOW ITALIAN BEES AND QUEENS

May packages, full weight, disease free, quick service. Some dark Italians.

2-lbs. package with queen	\$3.25 each	4 frame nuc package—	
3-lbs. package with queens	4.25 each	2 or 4	\$6.10 each
Queens (Air Mail)	1.00 each	6 or more	6.00 each

After May 20th by Air Mail. Selected choice yellow or golden Italian queens. Clipped if desired. 70 each. Queens marked with white paint dot \$1.00 each. Please send currency or coin for small orders. Prices in U. S. A.

NEAL'S APIARIES

Hamburg, Louisiana

YELLOW ITALIAN BEES AND QUEENS

We are now booking orders for package bees and queens. We will be ready to start shipping April 1st. We guarantee you live delivery; full weight packages of young bees. Each package of bees will be headed by a young queen; a health certificate with each order, and above all we guarantee you satisfaction. We require a 10% deposit to book your order, balance 10 days before shipping date. OUR PRICES ARE:

PACKAGE BEES WITH QUEENS

PRICES AFTER MAY 10TH

2-lb.	3-lbs.	4-lbs.	5-lbs.	Queens
\$3.30 each	\$4.30 each	\$5.30 each	\$6.30 each	75c each

OSCAR ARNOUVILLE

Box 35, Hamburg, Louisiana

Use ABJ Labels—They Get Results

American Bee Journal

**FOR BETTER BEE KEEPING USE
DADANT'S FOUNDATION**



**WEST COAST
BEEKEEPERS**
Buy Quality
**Lewis-Dadant
Products**
from
F. O. IRICK
609 S. H. St.
Tulare, California

PACKAGE BEES

2-lb. package\$3.00
3-lb. package 4.00
Queen \$1.00—Any Amount.

Citronelle Bee Co.
CITRONELLE, ALABAMA

**KEEP BEES? THEN YOU WANT
THE BEEKEEPERS MAGAZINE**

\$2.00 a Year

Sample Copy mailed upon request

E. ELMER CARROLL, Publisher
3110 Piper Road, Lansing 15-B, Mich.

SPECIAL—Big Bee Sale

Three-Banded Italians, 95% baby bees; 5% teachers. We have 3,000 to 4,000 packages to go at the following prices: After May 1st, 2-lb. pkg. and queen, \$3.00; 3-lb. pkg. and queen \$4.00; Extra queen \$1.20. Write for big discount on large orders. We can handle any size order.

DUPUIS APIARIES
BREAUX BRIDGE, LOUISIANA

**TOP QUALITY
QUEENS \$1.00 EACH**
AIRMAIL

Don't forget us if you need
booster packages.

SAM E. MOORE

2436 North St., Redding California
Phone 293-R

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Thousands of Rabbits
and other Small Stock.
Poultry & Birds. Let

"STANDARD RABBIT & PET JOURNAL"

Bring you the Monthly News of Rabbit,
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and Other Pets.

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Quick, handy, economical
Cushman saves expense, gets
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See your Dealer or Write Dept. ABJ 49

CUSHMAN MOTOR WORKS, INC. LINCOLN NEBR. U.S.A.



SAVES
YOU
MONEY

DADANT'S PLAIN FOUNDATION

Hand sorted packages of plain sheets of foundation, to be wired into your frames by hand. Each sheet is inspected before placing it between tissue. You get the perfect ones only; clear, sweet-smelling beeswax; nice, straight rows of cells. Precision milled. Seventy-five years of know-how go into this product.

DADANT & SONS, Inc.

Hamilton, Illinois

QUEENS AND PACKAGE BEES—QUEENS 60 CENTS

Let us book your order now. We do our utmost to ship the day you specify. Safe arrival, satisfaction guaranteed. All packages F.O.B. Express. Health certificate with every order.

2-lb. package with young queen\$3.00
3-lb. package with young queen 4.00
4-lb. package with young queen 5.00
Untested queens60
Tested queens 1.25

RUPERT OLIVE

Ramer, Alabama

Three-Banded Italian Package Bees and Queens

Very gentle and extra good honey getters. Prompt service. Highest quality.

PRICES—

2 pound package with queen\$4.00
3 pound package with queen 5.00
Each additional pound 1.00

UNTESTED QUEENS—

1 to 25\$1.25
25 to 50 1.20
50 up 1.15
Tested queens 2.00

Bessemer Apiaries, 4300 A Raleigh Rd., Greensboro, N. C.

ITALIAN QUEENS . . . BEES

To meet the lowering market price for honey—by purchasing cheaper lumber for cages and because of extra heavy brood rearing this spring, I am reducing prices. Breeding stock still from stock of 250-300 pound production, for both queen colonies and drone colonies for mating.

2-lb. bees with queen \$3.75 (100 or more, 20c less) 4-frame nucs 2 to hive bodies
3-lb. bees with queen 4.70 (100 or more, 20c less) \$7.00 each, you furnish body.
Queens 1.20 (100 or more, 10c less) Health certificate with all shipments.

HOMER W. RICHARD

Gould, Arkansas

YELLOW ITALIAN—"We have em brother"

Our queens are large, gentle, productive and yellow to the tip.
Cages? are light and strong.
Service? 24 hours.
Health? guaranteed.

Clipped and painted queens add 25c. Clipped only add 10c per queen or package.

1 to 24\$3.25 2-lb. with queen 3-lb. with queen Queen Air Mail
25 or more 3.10 \$4.25 \$.75
4.10 .70

PLAUCHE BEE FARM

Hamburg, Louisiana

QUEENS—PACKAGE BEES FOR 1949

ESTABLISHED 1883

Maximum production is most easily assured with superior bees and queens. That's one way we try to help you make money. Superior bees and queens is our motto at all times. We like to have 50 per cent deposit and balance before shipping date. We believe this is fair to all—as we like to plan and ship the day you want shipment. Price scale:

Queens, any number \$1.00—Tested Queens \$2.00

2-lb. package and queen\$3.00 any number
3-lb. package and queen 4.00 any number

THE VICTOR APIARIES

Uvalde, Texas

PACKAGE BEES with Queens

MAY WE RESERVE THE DATE YOU DESIRE FOR YOUR SHIPMENT?

ITALIANS



	1-24	25-49	50-99	100-up
2-lb. package with queens	\$4.50	\$4.25	\$4.00	\$3.75
3-lb package with queens	5.25	5.00	4.75	4.50
4-lb. package with queens	6.00	5.75	5.50	5.25
5-lb. package with queens	6.75	6.50	6.25	6.00

SUNNY SOUTH APIARIES

MARKSVILLE, LA.

I. CLARK, Prop.

HONEY GIRL APIARIES

Package BEES and QUEENS When You Want Them

ITALIAN BEES AND QUEENS



	1-24	25-49	50-99	100-up
2-lb. package with queens	\$4.50	\$4.25	\$4.00	\$3.75
3-lb package with queens	5.25	5.00	4.75	4.50
4-lb. package with queens	6.00	5.75	5.50	5.25
5-lb. package with queens	6.75	6.50	6.25	6.00

For price of queenless packages, deduct the price of the queens

W. E. CASE, Proprietor : Moreauville, Louisiana

ITALIAN PACKAGE BEES AND QUEENS

The spring season is at hand. Book your order now for our fine THREE-BANDED ITALIAN BEES AND QUEENS. Through years of selective and line breeding, we developed a strain we believe equal to any for its productiveness, hardiness and vitality. Health certificate, safe, reliable, dependable service, live arrival guaranteed.

On orders of 5 or more packages 10% discount, 15% after May 15th.

2-lb. package with queen	\$3.50	QUEENS
3-lb. package with queen	4.50	75 CENTS
4-lb. package with queen	5.50	
5-lb. package with queen	6.50	

B. J. BORDELON APIARIES

Moreauville, Louisiana

DO YOU KNOW Our Universal Honey Extractor

HAND OR MOTIVE POWER

Is true to name inasmuch as it has the greatest capacity for all size frames of any 24 inch diameter extractor on the market? It will take FOUR deep frames up to 12 inch or EIGHT shallows up to 6 1/4 inch at a loading.

When the Townsends ordered cans for 186,000 pounds of honey in 1940, we asked if they continued to use the Universals bought in 1929. Their reply was, "For your information, three of these extractors have extracted at least 750,000 pounds of honey and are working today August 31st, 1940. Mostly hive warm honey at our yards, which extracts easily."

A. G. WOODMAN CO.
GRAND RAPIDS, MICHIGAN, U. S. A.

BRIGHT ITALIAN QUEENS

Our Golden Queens producing beautiful, gentle bees have given unexcelled service for many years. Thanks to our patrons for the volume of business given us in 1948. Untested Queens, 1-24, \$1.25 each; 25-99, \$1.00 each; 100 and up \$.90 each.

COTTON BELT APIARIES, Box 163, Klondike, Texas

QUEENS

Italian Only

1 to 10	\$1.25 each
11 to 25	1.15 each
26 to 50	1.05 each
51 and up	.90 each

May delivery.

J. E. Wing & Sons
Knights Landing, California

PALMETTO QUALITY QUEENS

Our queens are quality bred. Bred from Mottis strain of three band Italians. Prices \$1.00 each, any number. Health certificate with each shipment. Book your order now.

C. G. Ellison & Sons
BELTON, SOUTH CAROLINA

MOUNTAIN GRAY BEES FOR MAY DELIVERY

Order now while we can supply you with genuine Mountain Gray Bees.

	Queens	2-lb.	3-lb.
1 to 24	\$1.20	\$4.00	\$5.00
25 to 99	1.10	3.75	4.75
100 up	1.00	3.50	4.50

Queens sent Postpaid. Package Bees F.O.B. by Express.

BOLLING BEE CO.
Bolling, Alabama

Glass and Tin Containers

5-lb. glass jars, carton of 6, 52c; 3-lb. glass jars, carton of 12, 60c; 2-lb. glass jars, carton of 12, 56c; 1 1/2-lb. glass jars, carton of 12, 54c; 1-lb. glass jars, carton of 24, 86c; 8-oz. glass jars, carton of 24, 80c; 2-oz. glass jars, carton of 36, \$1.14. All Hazel-Atlas Glass with white caps. Order 25 cartons 2c per carton less; 100 cartons, 4c less; 5-lb. Continental F. Top pails with handles, carton of 50, \$4.90; 10 cartons each \$4.48. Carton 16, 60-lb. cans, \$7.84.

Write for our complete list of pumps, window cartons and paper shipping supplies.

WE SHIP PROMPTLY.

Roscoe F. Wixson
Dundee, New York

Williams Italian Queens \$1.25 EACH

All Queens Clipped and Marked

DR. WILLIAMS APIARIES

303 W. DEFEY BAYTOWN, TEXAS

3-BANDED ITALIANS

We are booking orders for spring 1949. Only 20% with order, balance ten (10) days before shipping date. Health certificate with each shipment and live arrival guaranteed. 2-lb. pkgs. with queen \$3.50; 3-lb., \$4.50; 4-lb., \$5.50.

Write for prices after May 10th.

RED DIAMOND APIARIES
MANSURA, LOUISIANA

The HONEY SALESMAN

FALFA, COLORADO

A monthly, 16 letter-size pages Marketing information and a service to aid bulk honey sales. \$2.00 a year. Free sample copies.

Ship Your
HONEY & BEESWAX
to us. Top prices paid, prompt remittance. Also welcome your old comb shipments to be rendered into wax at very nominal charge.

THE FRED. W. MUTH CO.
229 Walnut Street
CINCINNATI 2, OHIO

BETTER BEES

An entirely new type Queenbee for 1949—Six generations of controlled instrumental mating and careful research work has gone into the production of these Northern bred pure all Italian hybrids. Progeny tested for uniformity of better honey production, easy to handle, resistant to the foulbroods and other valuable qualities under standard commercial Apiary operations.

Shipments start April 1st. We have just a few packages headed by these queens left. PRICES:

QUEENS	May 1	May 20
1-24	\$1.55	\$1.40
25-99	1.45	1.30
100-up	1.30	1.15

WICHT APIARIES, 406 Miller Street, Hattiesburg, Miss.



KELLEY—"The Bee Man"

Bees & Queens

We are straining out the drones and shipping only young bees, Plenty of open dates. Shipments start April 1st. 3-Banded Italians only.

	Each	25 or 100 or more
2-pound swarms young bees with young 1949 queens	\$4.00	\$3.75 \$3.50
3-pound swarms young bees with young 1949 queens	5.00	4.75 4.50
Young, 1949 3-Banded Italian Queens, Prepaid airmail, each \$1.00		

WALTER T. KELLEY CO. : Box 210 : Paducah, Ky.

Package Bees and Queens : Bright 3-banded Italians

NONE BETTER	PRICES—Queens	90 cents each
We guarantee Safe Arrival.	2-lb. package bees with queens	\$3.00
Packages F. O. B. Queens Prepaid.	3-lb. package bees with queens	4.00
	4-lb. package bees with queens	5.00
	5-lb. package bees with queens	6.00

TAYLOR APIARIES

Box 249, Luverne, Alabama

Bees and Queens

Italian, Caucasian and Resistant

Over 30 years a shipper.

Send for FREE CIRCULARS.

Blue Bonnet Apiaries

Rt. 1, Box 23
WESLACO, TEXAS

Renew Your Subscription Now To A-B-J

Berry's Old RELIABLE ITALIAN Bees

54 YEARS WITH THE BEES

AMERICA'S BEST PACKAGE BEES AND QUEENS

BOOSTER PACKAGE BEES

INDIVIDUAL QUEEN BEES

Insure your honey crop. Add booster young baby bees (90% of our booster bees are under ten days old)

Fill those vacant hives with Berry's producing swarms. We shipped 10,000 packages with queens in 1948 and had but ONE complaint as to supersedure and ABSOLUTELY NONE relative to NOSEMA. Having a large number of branch apiaries located in the North Central Western States gives us an excellent opportunity to test our strain for not only honey production but also from a disease and climatic standpoint. Our honest opinion for HEALTH and HONEY PRODUCTION our strain of Italian bees are unsurpassed. Fifty-four years of selective breeding counts.

PACKAGE BEES WITH QUEENS AND INDIVIDUAL QUEENS

(Prices after May 1st)

Quantity	Queens	2-lb. Pkgs.	3-lb. Pkgs.	4-lb. Pkgs.	5-lb. Pkgs.
1- 24	\$1.00	\$3.70	\$4.80	\$5.80	\$6.80
25- 99	.90	3.50	4.50	5.50	6.50
100-500	.85	3.25	4.25	5.25	6.25
500-up	.80	3.00	4.00	5.00	6.00

For price of queenless packages deduct price of queens

All of our queens in our packages or individual queens are of SELECT QUALITY. The culls we destroy. Only queen bees that we would use in our own apiaries do we ship or sell. Wings of queens are CLIPPED FREE OF CHARGE on request.

Safe arrival and entire satisfaction we guarantee on everything we ship whether packages or queens. All orders are filled promptly. We have NO DISEASE. A HEALTH CERTIFICATE and directions telling how to handle accompany all shipments. Any bee journal in the U. S. or Canada. The Union Bank and Trust Company, Montgomery, Alabama.

References: The First National Bank Montgomery, Alabama.

Remember: 54 years with the bees gives us not only age but ability and valuable experience. Thousands of strong colonies and thousands of queen yard nuclei enable us to give prompt delivery.

M. C. BERRY & SONS

Oldest Active Package Shippers South

Box 684, Montgomery, Alabama

PACKAGE BEES—Light Colored Italian Bees

ON THE SAME OLD BASIS—QUALITY, SERVICE, SATISFACTION

LIVE DELIVERY GUARANTEED
ON ALL SHIPMENTS
10% DEPOSIT BOOKS
ANY ORDER.

3-lb. package with queen	\$3.00
4-lb. package with queen	4.00
5-lb. package with queen	5.00
Queens, after June 1st	.50

E. J. Bordelon Apiaries : Moreauville, La. : Box 33

OUR PURE CAUCASIANS ARE ABSOLUTELY TOPS IN QUALITY,

HONEY PRODUCTION, GENTLENESS

As we realize that our customers keep us in business we strive to serve them with only the best.



2-lb. package with queen	LOTS 1-10	\$4.40
3-lb. package with queen		5.50
QUEENS (each)		1.35

Health certificate furnished with each shipment and live delivery guaranteed.

PINE BLUFF BEE FARMS

(Caucasian Branch—
Jesse E. Gooch & Sons)

Route 3, Pine Bluff, Arkansas

Renew Your Subscription Now To A-B-J

The Customer is Always Right !

**Your customer wants more
comb honey! Give him
what he wants!**



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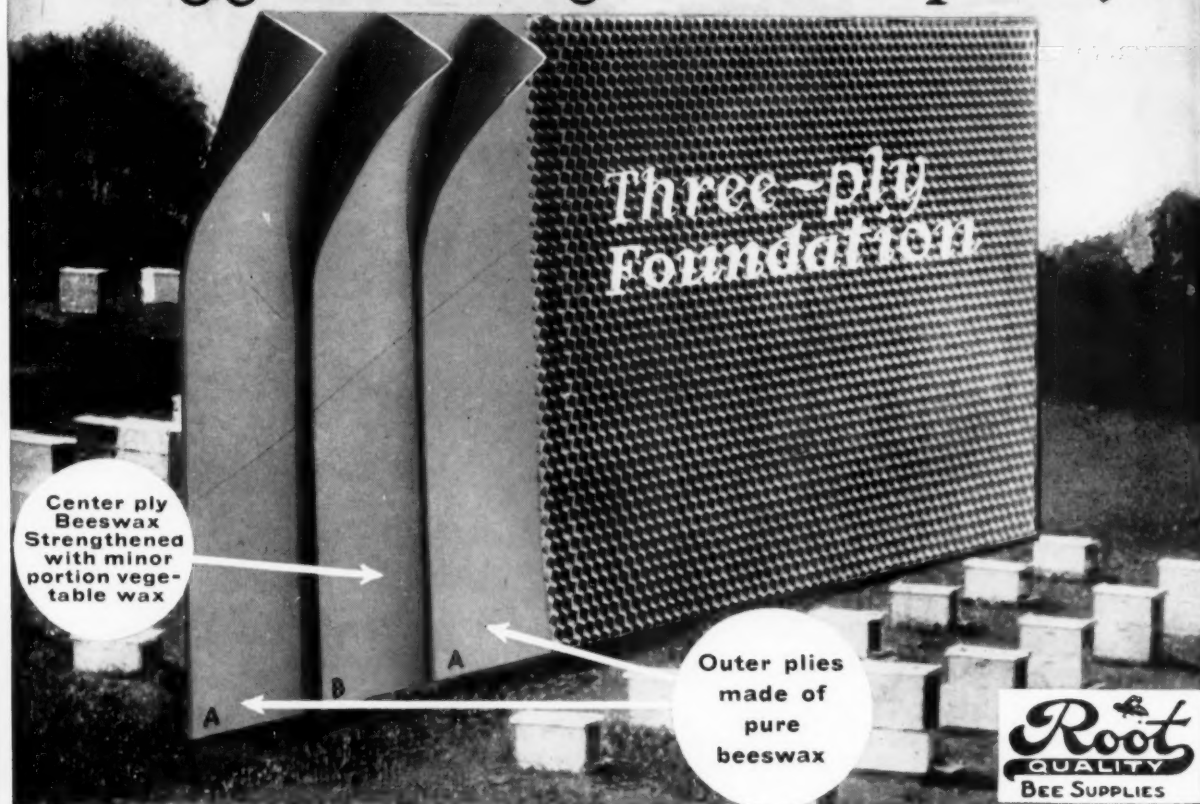
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Biggest Thing in The Apiary



WHY BEEKEEPERS LIKE

ROOT'S 3-PLY FOUNDATION

September 15, 1948

"Near-perfect combs are a necessity in our short season both as a means of raising the maximum worker population and as a means of preventing swarming. Stretched and sagging combs full of drone cells not only do not pay but are a double expense.

"Because of the number of man hours involved in putting in foundation and bee labor involved in drawing it out, the first cost of foundation is so comparatively small it does not pay to buy anything but the best. We prefer horizontally wired foundation because it produces combs that are vertical with no bends. We like Three-Ply for its maximum support and minimum number of attachment wires. Our experience shows this combination makes for lasting combs."

Edward H. Hazen,
North Hero, Vt.

Mr. Hazen's letter is one of many who use Three-Ply Foundation and find it tops in the apiary.

ORDER FROM YOUR NEAREST DEALER

THE A. I. ROOT CO.

MEDINA, OHIO

ESTABLISHED 1869

Root
QUALITY
BEE SUPPLIES

Root
QUALITY
BEE SUPPLIES